



PRECISION
ENVIRONMENTAL SERVICES, INC.

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BALLSTON SPA, NY 12020
TEL: 518-885-4399
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CERTIFIED WOMEN-OWNED BUSINESS ENTERPRISE



February 5, 2021

Ms. Jenelle Gaylord
Assistant Geologist
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7016

**RE: Groundwater Sampling Results Report – Emerging Contaminants
Verona Research Facility
Germany Road, Verona, New York
NYSDEC Site No. 633046**

Dear Ms. Gaylord:

Precision Environmental Services, Inc. (PES), was retained by the New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation to complete a groundwater sampling event at the Verona Research Facility through CallOut ID: 139265, dated July 9, 2020. The Verona Research Facility is located along the southwestern side of Germany Road approximately one mile northwest of the intersection of Germany Road and New York State (NYS) Route 31, as depicted on Figure 1.

Specifically, the scope of work included sampling a series of existing monitoring wells for emerging contaminants. This sampling event was conducted coincident with a sampling event being performed by Lu Engineers on behalf of the property owner (US Air Force). The paragraphs below provide a description of the field activities followed by a summary of the analytical results. A tabular summary of analytical results (detected compounds only) and site maps are presented at the end of this letter report followed by supporting documentation in various attachments.

GROUNDWATER SAMPLING ACTIVITIES

On October 21, 2020, PES personnel were onsite to collect groundwater samples from a series of existing monitoring wells for emerging contaminant analysis including 1,4-dioxane and PFAS (full list). Representatives from Lu Engineers were also present onsite to collect samples from select wells for 1,4-dioxane analysis only. Prior to sample collection, three well volumes were purged from each location using low flow techniques by Lu Engineers personnel. Lu Engineers personnel also recorded field parameters throughout well purging activities. Field sampling activities were conducted in accordance with NYSDECs *Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS)*, dated October 2020, and appropriate sampling equipment was used (i.e., HDPE tubing, non-PFAS containing materials,

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etc.). A peristaltic pump and clean, dedicated tubing were used at each well for all purging and sample collection activities.

In total, PES collected groundwater samples from seven existing monitoring wells including two upgradient locations TPW-14 and TPW-33R; one downgradient location B1243-W05; and four source area locations B1231 MW-03, B1253IR, B1219-W06 and B-54 B1266-W12, as depicted on Figure 2. It is important to note that prior to the sampling event, Lu Engineers personnel reported that all wells in source area B1253 had been destroyed such that no sampling was expected in that area. However, at the time of the sampling event, one well (MW-1253IR) was discovered in the area such that purging/sampling was completed at this location. In addition to the seven wells, specific quality assurance/quality control (QA/QC) samples were collected including an equipment blank, a matrix spike/matrix spike duplicate (MS/MSD) and field duplicate for laboratory analysis. The MS/MSD sample was collected at well TPW-33R and the field duplicate was collected at well B1231-MW-03. All samples were submitted, under proper chain of custody documentation, to Eurofins/TestAmerica laboratory, in Buffalo, New York for analysis including Category B deliverables.

Upon receipt, the laboratory analytical report was reviewed by NYSDEC personnel for validation purposes. The findings of this review were summary in a Data Review Report prepared by the NYSDEC and included as Attachment 1.

OBSERVATIONS

At the time of the sampling activities, all wells were found to be in good condition and represented viable sampling points. No odors, sheens or other evidence of contamination were observed during purging activities and no problems with well recharge or other problems were noted. Photo-documentation of the site, wells and purging activities are presented in Attachment 2.

As previously stated, all well purging activities were completed by Lu Engineers personnel included recording field parameter measurements. Groundwater sampling field records prepared by Lu Engineers including a summary of the field parameter measurements are presented in Attachment 3.

GROUNDWATER ANALYTICAL RESULTS

As previously stated, groundwater samples were collected for emerging contaminant analyses from a total of seven wells along with QA/QC samples. 1,4-Dioxane was not detected in any of the wells; however, PFAS compounds were detected in each of the wells. The PFAS results for these wells are summarized on Table 1 and the laboratory analytical report is present in Attachment 4.

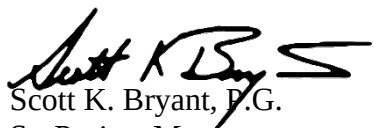
As indicated in Table 1, one or more PFAS compounds were detected in all seven wells plus the duplicate sample from well B1231-MW-03. PFAS compound concentrations in these samples ranged from estimated concentrations less than 1.0 nanogram per liter (ng/L) to 11 ng/L. Of these reported concentrations, only the perfluorooctanesulfonate acid (PFOS) concentration of 11 ng/L in well B1243-W05 exceeds the applicable NYSDEC Guidance Value of 10 ng/L (Table

1). All other reported PFAS concentrations were below their respective NYSDEC Guidance Values.

In general, the highest individual PFAS compound concentrations and total PFAS concentrations were noted in source area samples B1231-MW-03 (including the duplicate) and B1243-W05; however, somewhat elevated concentrations were also noted in upgradient well TPW-33R.

Please feel free to contact the undersigned at 518 229-7383 or via email should you have any questions regarding this Groundwater Sampling Results Report.

Sincerely,
PRECISION ENVIRONMENTAL SERVICES, INC.

A handwritten signature in black ink, appearing to read "Scott K. Bryant".

Scott K. Bryant, P.G.
Sr. Project Manager

TABLES

TABLE 1
SUMMARY OF ANALYTICAL RESULTS - EMERGING CONTAMINANTS IN GROUNDWATER
VERONA RESEARCH FACILITY
GERMANY ROAD, VERONA, NEW YORK
NYSDEC SITE NO. 633046

Compound	NYSDEC Groundwater Standards/ Guidance Values	SAMPLE ID/DATE							
		TPW-33R	B1231-MW-03	B1243-W05	MW-1253 IR	B1219-W06	B-54 B1266-W12	TPW-14	DUP*
		10/21/20	10/21/20	10/21/20	10/21/20	10/21/20	10/21/20	10/21/20	10/21/20
EPA Method 8270									
1,4-Dioxane	1,000	ND	ND	ND	ND	ND	ND	ND	ND
PFAS - Modified 537									
Perfluorobutanoic acid (PFBA)	100	1.8 J	10	2.0 J	ND	7.4	4.9	ND	10
Perfluoropentanoic acid (PFPeA)	100	ND	2.2	ND	ND	ND	ND	ND	2.2
Perfluorohexanoic acid (PFHxA)	100	0.75 J	2.4	ND	ND	ND	ND	ND	2.4
Perfluoroheptanoic acid (PFHpA)	100	0.50 J	2.5	0.44 J	ND	0.60 J	0.54 J	ND	2.8
Perfluorooctanoic acid (PFOA)	10	1.3 J	3.3	4.2	ND	1.3 J	1.7	ND	3.5
Perfluorononanoic acid (PFNA)	100	ND	1.0 J	ND	ND	ND	ND	ND	1.1 J
Perfluorododecanoic acid (PFDoA)	100	ND	ND	ND	ND	ND	ND	0.62 J-	ND
Perfluorobutanesulfonic acid (PFBS)	100	0.71 J	0.96 J	ND	ND	0.71 J	1.0 J	ND	1.1 J
Perfluorohexanesulfonic acid (PFHxS)	100	3.8	1.5 J	5.0	ND	ND	1.1 J	ND	1.3 J
Perfluorooctanesulfonate acid (PFOS)	10	6.0	1.9	11	1.8	0.94 J	4.5	ND	2.0
1H, 1H, 2H, 2H-perfluorooctanesulfonic acid	100	ND	ND	ND	1.1 J	ND	ND	ND	ND
Total Compounds	500	14.86	25.76	22.64	2.90	10.95	13.74	0.62 J	26.40

NOTES:

- All results reported in ng/L (parts per trillion)
- All analytical results have been validated by NYSDEC personnel (Attachment 1).
- ND = Compound not detected above method detection limit
- J = Estimated concentration between the method detection limit (MDL) and the reporting limit (RL).
- J- = The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
- Boldfaced font/highlighted cell indicates exceedance of the applicable NYSDEC Guidance Value
- * Duplicate collected at well B1231-MW-03

FIGURES



PRECISION ENVIRONMENTAL SERVICES, INC
 831 NYS Route 67, Lot 38A
 Ballston Spa, NY 12020
 518-885-4399



Map Courtesy of USGS - Verona, NY
 7.5 minute Quadrangle - 2019

SITE LOCATION MAP

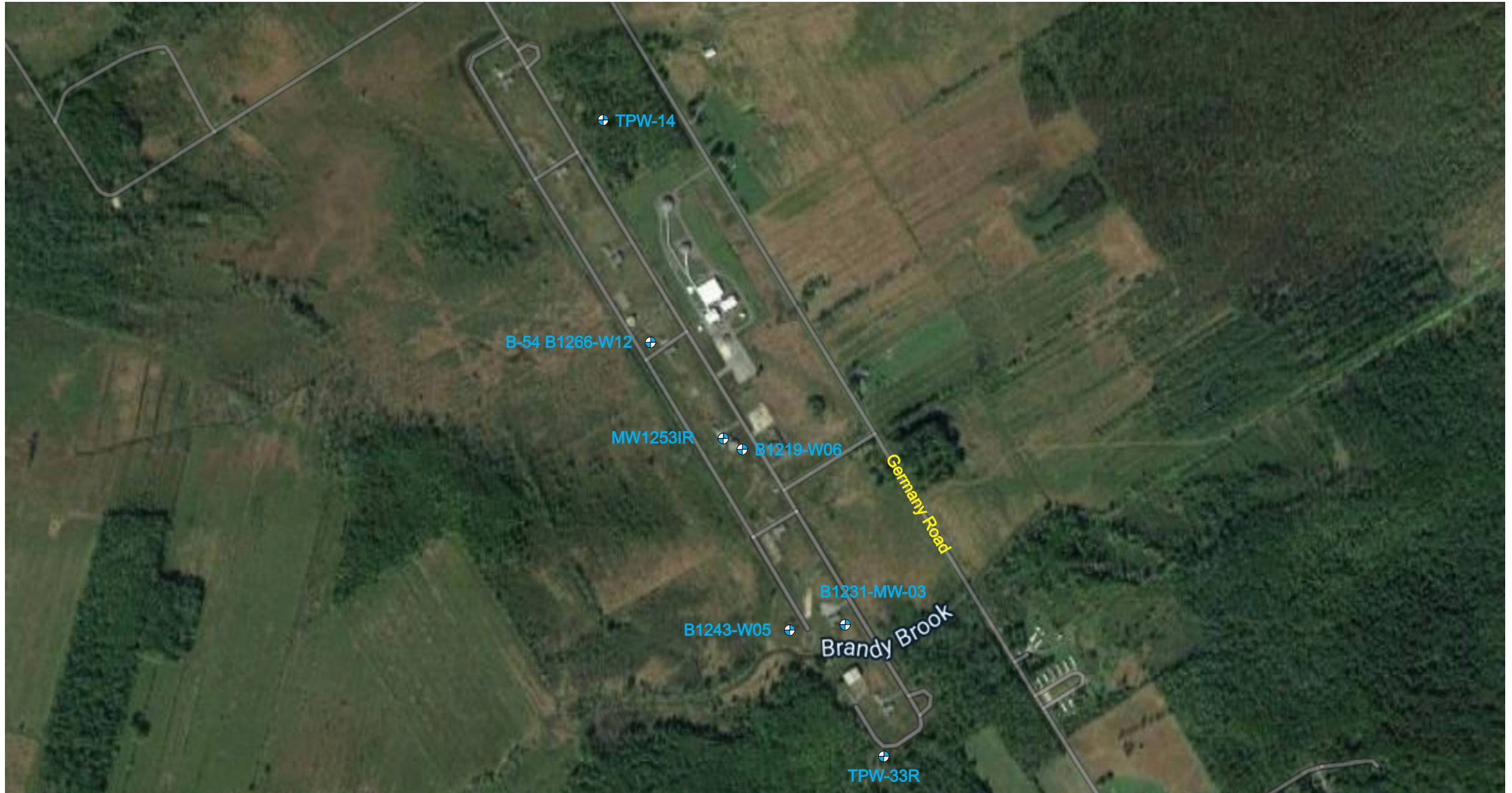
Germany Road
 Verona, NY

NYS DEC Site #: 633046

Figure: 1

Date: November - 2020

Not to Scale



PRECISION ENVIRONMENTAL SERVICES, INC
 831 NYS Route 67, Lot 38A
 Ballston Spa, NY 12020
 518-885-4399



General Site Map

Updated By : JJJ

Figure: 2

Date: November - 2020

Not to Scale

**Germany, Road
Verona, NY**

LEGEND

B1243-W05



- Groundwater Monitoring Well Location

**Sampled on 10/21/20 - Not necessarily
representative of all onsite monitoring wells.*

ATTACHMENT 1

NYSDEC DATA REVIEW REPORT

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau E

625 Broadway, 12th Floor, Albany, NY 12233-7017

P: (518) 402-9813 | F: (518) 402-9819

www.dec.ny.gov

Data Review Report

Verona Research Facility

Site No. 633046

Project Manager – Jenelle Gaylord

Analytical Laboratory: TestAmerica – Buffalo, NY and Burlington, VT

Job No.(s): 480-176996-1

Sample Date(s): 10/21/2020

Received Date(s): 10/23/2020 at 8 AM

Analysis Date(s): 10/27/2020 thru 10/30/2020

Chain-of-Custody –

All samples were collected and shipped under COC record and received within two (2) days of sampling. All samples were received intact and in good condition. All samples met preservation and integrity requirements. Temperature of cooler(s) at time of receipt was:

- 2.8°C and 3.2°C

Nine (9) samples were analyzed for 1,4-Dioxane by – Method 8270D SIM using Isotope Dilution with an Initial Reporting Limit of 0.20 ug/L for waters.

Nine (9) samples were analyzed for PFAS by – Modified EPA Method 537 – Fluorinated Alkyl Substances with an Initial Reporting Limit of 2.0 ng/L for waters.

Sample Matrix = Nine (9) Waters

Holding Times –

All samples and/or sample extracts were analyzed within the specified holding times of 7 days for 1,4-Dioxane and 14 days for PFAS to extraction from date of sampling and 28 days to analysis from day of extraction.

1,4-Dioxane Analysis –

Nine (9) field samples, one (1) method blank, one (1) matrix spike/matrix spike duplicate, and one (1) laboratory control sample were analyzed for 1,4-Dioxane using Method 8270D SIM with Isotope Dilution.



Department of
Environmental
Conservation

The following items were reviewed for compliancy –

Tune Criteria –

All samples were analyzed within 24 hours of a passing DFTPP tune.

Initial Calibration - the multi-point calibration(s) had a Percent Relative Standard Deviation (%RSD) of $\leq 50\%$ for all reported analytes. Meeting calibration curve evaluation criteria. All reported analytes were detected at the appropriate levels of 0.2, 0.4, 0.6, 0.8, 1.0, 1.2, 2.0, 4.0, 6.0, 8.0, 10, and 12 ug/mL in the two multi-point calibration(s) to support the reporting limits provided.

Continuing Calibration Verification - the calibration verification run(s) for the analysis batch exhibited a % Deviation less than or equal to the Maximum % Deviation criteria of 20% for both the target analyte and its corresponding isotope dilution analyte.

Method Blank(s) - the method blank associated with the analysis batch for the water samples met the % Recovery criteria for the labeled compound of 15 – 110%. The native analyte that was analyzed for was reported as non-detect at the determined Reporting Limit of 0.20 ug/L.

Laboratory Control Sample(s) – the LCS % Recovery for both the labeled and native spiked analytes were within the set quality control limits of 40 – 140% (native analytes) and 15 – 110% (labeled analytes) for the analytical batch associated with the water samples

Matrix Spike/Matrix Spike Duplicate – the matrix spike and matrix spike duplicate pair spiked analyte recoveries should fall within the established control limits. If spiked analyte recoveries are outside the established control limits, then the spiked analyte must be within the control limits in the associated laboratory control sample (LCS).

For field sample TPW-33R MS/MSD, the % Recovery for both the labeled and native spiked analytes were within the set quality control limits of 40 – 140% (native analytes) and 15 – 110% (labeled analytes) .

The MS/MSD Relative Percent Difference in field sample TPW-33R, met the QC Limit of 20% or less for the reported analyte.

Field Duplicate Precision – for Field Sample B1231-MW-03 and its field duplicate Duplicate, duplicate precision criteria was not calculated since both samples were non-detect for 1,4-dioxane at the Reporting Limit of 0.19 ug/L.

Isotope Dilution Recoveries – fell within the established recovery limit of 15% to 110% for all field samples and QA/QC samples.

PFAS Analysis –

Nine (9) field samples, one (1) method blank, one (1) matrix spike/matrix spike duplicate, and one (1) laboratory control sample were analyzed for PFAS using the TestAmerica's Modified EPA Method 537. The following analytes were included in the report, but accreditation/certification is not offered by the governing authority (ELAP):

- 6:2 FTS
- 8:2 FTS

- N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)
- N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)
- Perfluorobutansulfonic acid (PFBS)
- Perfluorobutanoic acid (PFBA)
- Perfluorodecanesulfonic acid (PFDS)
- Perfluorodecanoic acid (PFDA)
- Perfluorododecanoic acid (PFDoA)
- Perfluoroheptanesulfonic acid (PFHpS)
- Perfluoroheptanoic acid (PFHpA)
- Perfluorohexanesulfonic acid (PFHxS)
- Perfluorohexanoic acid (PFHxA)
- Perfluorononanoic acid (PFNA)
- Perfluorooctane Sulfonamide (PFOSA)
- Perfluorooctanesulfonic acid (PFOS)
- Perfluorooctanoic acid (PFOA)
- Perfluoropentanoic acid (PFPeA)
- Perfluorotetradecanoic acid (PFTeA)
- Perfluorotridecanoic acid PFTriA)
- Perfluoroundecanoic acid (PFUnA)

The following items were reviewed for compliancy –

Initial Calibration – the multi-point calibration(s) had a Percent Relative Standard Deviation (%RSD) of $\leq 20\%$ for all reported analytes or a coefficient of determination ≥ 0.9900 for all reported analytes. Meeting calibration curve evaluation criteria. All reported analytes were detected at the appropriate levels of 0.05, 0.1, 0.5, 1.0, 2.5, and 10 ng/mL in the multi-point calibrations(s) to support the reporting limits provided.

Initial Calibration Verification – the initial calibration verification run exhibited a % Deviation less than or equal to the Maximum % Deviation criteria of 40% or 50% for the target PFAS analytes, depending on the analyte.

Continuing Calibration Verification – the continuing calibration verification run(s) for the analysis batches exhibited a % Deviation less than or equal to the Maximum % Deviation criteria of 40% or 50% for the target PFAS analytes, depending on the analyte.

Method Blank – the method blank associated with the analysis batch for the PFAS water samples met the % Recovery criteria for the labeled compounds of 25 – 150%. All the native analytes that were analyzed for were reported as non-detects at the determined Report Limit of 2.0ng/L or 5.0ng/L, depending on the compound.

Laboratory Control Sample – the LCS % Recovery for both the labeled and native spiked analytes were within the set quality control limits for the analytical batch associated with the PFAS water samples.

Matrix Spike/Matrix Spike Duplicate – the matrix spike and matrix spike duplicate pair's spiked analyte recoveries should fall within the established control limits. If spiked analyte recoveries are outside the established control limits, then the spiked analyte must be within the control limits in the associated laboratory control sample (LCS).

For field sample TPW-33R MS/MSD, the % Recovery for both the labeled and native spiked analytes were within the set quality control limits.

The MS/MSD Relative Percent Difference for each analyte in field sample TPW-33R met the QC Limit of 30% or less for all reported analytes.

Field Duplicate Precision – for Field Sample B1231-MW-03 and its field duplicate Duplicate, duplicate precision criteria of $\leq 25\%$ RPD was met for each of the reported analytes.

Precision is influenced by how close the analytical value is to the MDL. The percent relative standard deviation increases rapidly as the analytic value approaches the MDL. The use of percent relative standard deviation is limited to analytical values that are at least five (5) times the MDL. Therefore, only PFBA and PFHpA's Relative Percent Difference (RPD) were used to evaluate field precision.

Isotope Dilution Recoveries – fell within the established recovery limit of 50% to 150% for all field samples and QA/QC samples except for –

- Sample B1243-W05 Isotope Dilution Analytes – 13C2 PFUnA, 13C2 PFDoA, 13C2 PFTeDA, d3-NMeFOSAA, and d5-NEtFOSAA had recoveries <50%.
- Sample B1219-W06 Isotope Dilution Analytes – 13C2 PFDoA, 13C2 PFTeDA, and d5-NEtFOSAA had recoveries <50%.
- Sample B-54 B1266-W12 Isotope Dilution Analytes – 13C2 PFDoA and 13C2 PFTeDA had recoveries <50%.
- Sample TPW-14 Isotope Dilution Analytes – 13C4 PFOS, 13C2 PFDA, 13C2 PFUnA, 13C2 PFDoA, 13C2 PFTeDA, d3-NMeFOSAA, d5-NEtFOSAA had recoveries <50%.

Generally, data quality is not considered affected if the Isotope Dilution Analyte's signal-to-noise ratio is greater than 10:1, which is achieved for all the flagged IDAs. Only for sample TPW-14 is there a reported target analyte associated with IDA 13C2 PFDoA. A validation 'J-' qualifier has been assigned to PFDoA's result.

Validation Data Qualifier Definitions

U	The analyte was analyzed for, but was not detected above the level of the associated quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
J-	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
J+	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
UJ	The analyte analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.
NJ	The detection is tentative in identification and estimated in value. Although there is

presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present.

EMPC The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample.

This report addresses analytical performance as defined in Method 8270D SIM and in EPA's Perfluorinated Alkyl Acids – Method 537, TestAmerica's Modified EPA Method 537 – WS-LC-0025 Rev. 2.4 – Perfluorinated Compounds (PFCs) in Water, Soils, Sediments, and Tissue.

All data reviewed addresses those compounds which are represented on the final laboratory reports. Results should be considered usable with any qualifiers taken into consideration.

No Validation Data Qualifiers were added to the reported results for 1,4-Dioxane.

Validation Data Qualifiers were added to the following:

- TPW-14 PFD_oA Result = J-

Prepared by: Gail A. Dieter
Environmental Chemist II
Division of Environmental Remediation – Bureau E
e-mail: gail.dieter@dec.ny.gov
01/05/2021

ATTACHMENT 2
PHOTO-DOCUMENTATION



Photo 1 – Well purging activities and field parameter measurements at well B-54 B1266-W12.



Photo 2 – Field parameter measurements from well B-54 B1266-W12.



Photo 3 – Well purging activities and field parameter measurements at well B1219-W06.



Photo 4 – Field parameter measurements from well B1219-W06.



Photo 5 – Final field parameter measurements from well B1231-MW-03.



Photo 6 – Well purging activities and field parameter measurements at well B1243-W05.



Photo 7 – Final field parameter measurements from well B1243-W05.



Photo 8 – Well purging activities and field parameter measurements at well MW-1253IR.



Photo 9 – Final field parameter measurements from well MW-1253IR.



Photo 10 – Well purging and sampling activities at well TPW-33R.



Photo 11 – Final field parameter measurements from well TPW-33R.

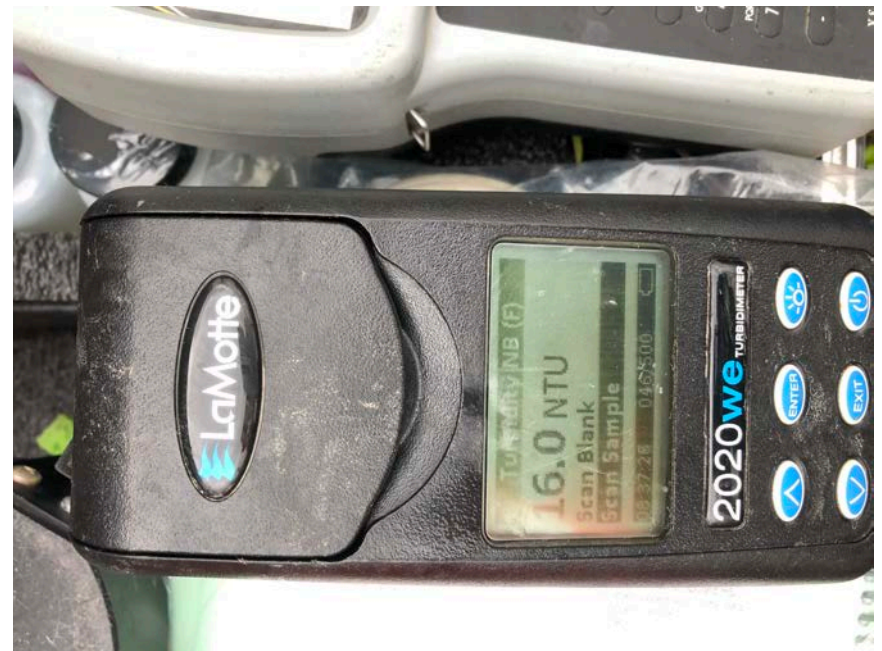


Photo 12 – Final turbidity readings at well TPW-33R.



Photo 13 – Well purging activities and field parameter measurements at well TPW-14.



Photo 14 – Final field parameter measurements from well TPW-14.

ATTACHMENT 3

GROUNDWATER SAMPLING FIELD RECORDS (LU ENGINEERS)

Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL

Field Sample ID TP33/TPW-33R Job # 13124-15
 Sample Time 08:33 Sampling Event # __
 Date 10/20/2020

Initial Depth to Water <u>5.31</u> feet	Measurement Point <u>North</u>	Well Diameter <u>2"</u>
Final Depth to Water <u>10.29</u> feet	Well Depth <u>10.3</u> feet	Well Integrity:
Screen Length _____ feet	Pump Intake Depth _____	Cap <u>✓</u>
Total Volume Purged <u>2.75</u> gallons	PID Well Head _____	Casing <u>✓</u>
[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]		Locked <u>No</u>
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth		Collar <u>✓</u>

[illegible]

Purge Observations: Highly turbid initially
Purge Water Containerized: No

Type of Pump: Peristaltic
Type of Tubing: ¼" HDPE
Type of Water Quality Meter: YSI Pro Plus Quatro; LaMotte 2020 Calibrated: _____

Parameter	Volumes	Sample Collected
1,4-dioxane	250mL (x2)	Yes

Well went dry and recovered after
a 10 minute pause
QA/QC samples collected: MS/MSD

Low Flow Groundwater Sampling Field Record

 Project Name Verona
 Location ID B1231
 Activity Time 9:43

 Field Sample ID B1231-MW-03
 Sample Time 10:15

 Job # 13124-15
 Sampling Event # __
 Date 10/20/2020

SAMPLING NOTES

Initial Depth to Water 1.01 feet Measurement Point North Well Diameter 2"
 Final Depth to Water 1.02 feet Well Depth 10.14 feet Well Integrity:
 Screen Length _____ feet Pump Intake Depth _____ Cap ✓
 Total Volume Purged 4.5 gallons PID Well Head _____ Casing ✓
 [purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter] Locked No
 Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth Collar ✓

PURGE DATA

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
	1.01		11.92	7.40	8.93	15.7	0.506	68.1	1 gallon purged
	1.01		11.99	7.23	6.07	3.80	0.485	73.7	2 gallons purged
	1.01		11.50	7.34	3.56	2.34	0.496	74.6	3 gallons purged
	1.02		11.53	7.35	2.07	2.51	0.494	64.1	4 gallons purged

 Purge Observations: Clear, no odor or sheen

 Purge Water Containerized: No

EQUIPMENT DOCUMENTATION

 Type of Pump: Peristaltic

 Type of Tubing: 1/4" HDPE

 Type of Water Quality Meter: YSI Pro Plus Quatro; LaMotte 2020

Calibrated: _____

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
1,4-dioxane	250mL (x2)	<u>Yes</u>

LOCATION NOTES

QA/QC samples collected:
Field duplicate

Low Flow Groundwater Sampling Field Record

 Project Name Verona
 Location ID B1243
 Activity Time 11:03

 Field Sample ID B1243-W05
 Sample Time 11:30

 Job # 13124-15
 Sampling Event # __
 Date 10/20/2020

SAMPLING NOTES

Initial Depth to Water 8.41 feet Measurement Point North Well Diameter 1"
 Final Depth to Water 13.20 feet Well Depth 13.23 feet Well Integrity:
 Screen Length feet Pump Intake Depth Cap ✓
 Total Volume Purged 1 gallons PID Well Head Casing ✓
 [purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter] Locked No
 Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth Collar No

PURGE DATA

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
	<u>9.71</u>		<u>14.93</u>	<u>7.36</u>	<u>3.27</u>	<u>—</u>	<u>0.643</u>	<u>-58.6</u>	<u>NTU over limit</u>
	<u>13.20</u>		<u>15.61</u>	<u>7.40</u>	<u>4.45</u>	<u>—</u>	<u>0.672</u>	<u>-49.8</u>	<u>NTU over limit</u>

 Purge Observations: Highly turbid, sulfur/septic odor
 Purge Water Containerized: No

EQUIPMENT DOCUMENTATION

 Type of Pump: Peristaltic
 Type of Tubing: 1/4" HDPE
 Type of Water Quality Meter: YSI Pro Plus Quatro; LaMotte 2020 Calibrated:

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
1,4-dioxane	250mL (x2)	Yes

LOCATION NOTES

Well went dry and recovered after
a 10 minute pause

Low Flow Groundwater Sampling Field Record

 Project Name Verona
 Location ID B1253
 Activity Time 12:35

 Field Sample ID MW-1253IR
 Sample Time 13:10

 Job # 13124-15
 Sampling Event # __
 Date 10/20/2020

SAMPLING NOTES

Initial Depth to Water <u>1.09</u> feet	Measurement Point <u>North</u>	Well Diameter <u>2"</u>
Final Depth to Water <u>1.17</u> feet	Well Depth <u>14.53</u> feet	Well Integrity:
Screen Length <u> </u> feet	Pump Intake Depth <u> </u>	Cap <u>✓</u>
Total Volume Purged <u>6.5</u> gallons	PID Well Head <u> </u>	Casing <u>✓</u>
[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]		Locked <u>✓</u>
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth		Collar <u>✓</u>

PURGE DATA

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
	1.09		16.58	~~7.79~~ 7.54	11.00	18.3	0.446	31.8	1 gallon purged
	1.09		16.58	7.54	8.96	7.79	0.451	47.5	2 gallons purged
	1.11		16.56	7.20	8.88	7.20	0.453	52.6	3 gallons purged
	1.13		16.61	7.50	9.36	2.92	0.456	55.1	4 gallons purged
	1.15		16.78	7.46	10.43	2.40	0.459	57.5	5 gallons purged
	1.17		16.78	7.47	8.35	6.60	0.467	59.5	6 purged

 Purge Observations: Clear, no odor or sheen
 Purge Water Containerized: No

EQUIPMENT DOCUMENTATION

 Type of Pump: Peristaltic
 Type of Tubing: 1/4" HDPE
 Type of Water Quality Meter: YSI Pro Plus Quatro; LaMotte 2020 Calibrated:

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
1,4-dioxane	250mL (x2)	<u>Yes</u>

LOCATION NOTES

Low Flow Groundwater Sampling Field Record

 Project Name Verona
 Location ID B1219
 Activity Time 13:30

 Field Sample ID B1219-W06
 Sample Time 13:50

 Job # 13124-15
 Sampling Event # __
 Date 10/20/2020

SAMPLING NOTES

Initial Depth to Water 3.56 feet Measurement Point North Well Diameter 1"
 Final Depth to Water 12.50 feet Well Depth 12.54 feet Well Integrity:
 Screen Length _____ feet Pump Intake Depth _____ Cap ✓
 Total Volume Purged 0.75 gallons PID Well Head _____ Casing ✓
 [purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter] Locked N
 Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth Collar N

PURGE DATA

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
	6.47		14.18	7.47	6.82	—	0.666	6.3	NTU over limit
	12.31		14.72	7.51	5.37	—	0.651	-1.3	NTU over limit

 Purge Observations: Highly turbid

 Purge Water Containerized: No

EQUIPMENT DOCUMENTATION

 Type of Pump: Peristaltic

 Type of Tubing: 1/4" HDPE

 Type of Water Quality Meter: YSI Pro Plus Quatro; LaMotte 2020

Calibrated: _____

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
1,4-dioxane	250mL (x2)	Yes

LOCATION NOTES

Low Flow Groundwater Sampling Field Record

Project Name Verona
 Location ID B1266
 Activity Time 14:30

Field Sample ID B-54/B1266-W12
 Sample Time 15:00

Job # 13124-15
 Sampling Event # __
 Date 10/20/2020

SAMPLING NOTES

Initial Depth to Water 4.31 feet Measurement Point North Well Diameter 1"
 Final Depth to Water 10.87 feet Well Depth 11.20 feet Well Integrity:
 Screen Length feet Pump Intake Depth Cap ✓
 Total Volume Purged 1 gallons PID Well Head Casing ✓
 [purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter] Locked No
 Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth Collar No

PURGE DATA

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
	5.24		15.07	8.04	8.32	—	0.601	-37.2	NTU over limit
	7.63		14.53	7.47	4.12	29.4	0.597	-57.2	0.5 gallons purged
	10.87		14.50	7.47	3.44	29.4	0.597	-58.7	1 gallon purged

Purge Observations: Initially highly turbid
 Purge Water Containerized: No

EQUIPMENT DOCUMENTATION

Type of Pump: Peristaltic
 Type of Tubing: 1/4" HDPE
 Type of Water Quality Meter: YSI Pro Plus Quatro; LaMotte 2020 Calibrated:

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
1,4-dioxane	250mL (x2)	<u>Yes</u>

LOCATION NOTES

Low Flow Groundwater Sampling Field Record

 Project Name Verona
 Location ID TPW-14
 Activity Time 15:50

 Field Sample ID TPW-14
 Sample Time 16:35

 Job # 13124-15
 Sampling Event # __
 Date 10/20/2020

SAMPLING NOTES

Initial Depth to Water 5.65 feet Measurement Point _____ Well Diameter 2"
 Final Depth to Water 13.80 feet Well Depth 13.81 feet Well Integrity: _____
 Screen Length _____ feet Pump Intake Depth _____ Cap ✓
 Total Volume Purged 3 gallons PID Well Head _____ Casing ✓
 [purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter] Locked No
 Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth Collar No

PURGE DATA

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
	8.43		13.28	7.33	15.89	—	0.716	26.0	1 gallon purged
	11.71		13.34	7.28	6.49	—	0.673	2.3	2 gallons purged
	13.80		13.03	7.29	4.16	—	0.657	0.1	3 gallons purged

 Purge Observations: Highly turbid

 Purge Water Containerized: No

EQUIPMENT DOCUMENTATION

 Type of Pump: Peristaltic

 Type of Tubing: 1/4" HDPE

 Type of Water Quality Meter: YSI Pro Plus Quatro; LaMotte 2020

Calibrated: _____

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
1,4-dioxane	250mL (x2)	Yes

LOCATION NOTES

Well went dry and recovered after
a 10 minute pause. Sampled @
3 gallons because well started to
go dry again

ATTACHMENT 4
LABORATORY ANALYTICAL REPORT

ANALYTICAL REPORT

Job Number: 480-176996-1

Job Description: Verona Research Facility #633046

Contract Number: C100700

For:

New York State D.E.C.

625 Broadway

Division of Environmental Remediation

Albany, NY 12233-7014

Attention: Jenelle Gaylord



Approved for release.
Wyatt B. Watson
Project Management Assistant I
11/3/2020 11:25 AM

Designee for

Judy L. Stone, Senior Project Manager

10 Hazelwood Drive, Amherst, NY, 14228-2298

(484)685-0868

Judy.Stone@Eurofinset.com

11/03/2020

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, Buffalo

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Table of Contents

Cover Title Page	1
Data Summaries	4
Report Narrative	4
Sample Summary	5
Detection Summary	6
Method Summary	8
Client Sample Results	9
Isotope Dilution Summary	20
QC Sample Results	22
Definitions	28
QC Association	29
Chronicle	31
Certification Summary	33
Organic Sample Data	34
GC/MS Semi VOA	34
Method 8270D SIM-ID	34
Method 8270D SIM-ID QC Summary	35
Method 8270D SIM-ID Sample Data	48
Standards Data	93
Method 8270D SIM-ID ICAL Data	93
Method 8270D SIM-ID CCAL Data	107
Raw QC Data	119
Method 8270D SIM-ID Tune Data	119
Method 8270D SIM-ID Blank Data	146
Method 8270D SIM-ID LCS/LCSD Data	151
Method 8270D SIM-ID MS/MSD Data	154

Table of Contents

Method 8270D SIM-ID Run Logs	160
Method 8270D SIM-ID Prep Data	164
LCMS	166
PFC_IDA	166
PFC_IDA QC Summary	167
PFC_IDA Sample Data	179
Standards Data	500
PFC_IDA ICAL Data	500
PFC_IDA CCAL Data	610
Raw QC Data	739
PFC_IDA Blank Data	739
PFC_IDA LCS/LCSD Data	825
PFC_IDA MS/MSD Data	848
PFC_IDA Run Logs	896
PFC_IDA Prep Data	898
Subcontracted Data	900
Shipping and Receiving Documents	901
Client Chain of Custody	902
Sample Receipt Checklist	905

Job Narrative
480-176996-1

Comments

No additional comments.

Receipt

The samples were received on 10/23/2020 8:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.8° C and 3.2° C.

GC/MS Semi VOA

Method 8270D SIM ID: The breakdown of 4,4'-DDT in the tuning evaluation exceeded 20%. Breakdown is not a criteria of the method but rather an internal check performed by the laboratory to evaluate the peak shape of 1,4-Dioxane and 1,4-Dioxane-d8. No adverse performance was observed and QC recoveries were in control. The data have been reported.

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

LCMS

Method 537 (modified): Internal standard responses were outside of acceptance limits for the following samples: TPW-33R (480-176996-2[MSD]) and B1231-MW-03 (480-176996-3). The sample(s) shows evidence of matrix interference.

Method 537 (modified): Compound 13C2 PFOA eluted outside the retention time window on the C-18 column for the following sample: TPW-33R (480-176996-2[MS]). This retention time shift was taken into account when reviewing the sample for target compounds.

Method 537 (modified): 13C2 PFDoA and 13C2 PFTeDA Isotope Dilution Analyte (IDA) recoveries associated with the following sample is below the method recommended limit: B-54 B1266-W12 (480-176996-7). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample(s).

Method 537 (modified): 13C2 PFUnA, 13C2 PFDoA, 13C2 PFTeDA, d3-NMeFOSAA and d5-NEtFOSAA Isotope Dilution Analyte (IDA) recoveries associated with the following sample are below the method recommended limit: B1243-W05 (480-176996-4). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

Method 537 (modified): 13C2 PFDoA, 13C2 PFTeDA and d5-NEtFOSAA Isotope Dilution Analyte (IDA) recoveries associated with the following sample are below the method recommended limit: B1219-W06 (480-176996-6). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

Method 537 (modified): 13C2 PFDA, 13C2 PFUnA, 13C2 PFDoA, 13C2 PFTeDA, d3-NMeFOSAA, d5-NEtFOSAA and 13C4 PFOS Isotope Dilution Analyte (IDA) recoveries associated with the following sample are below the method recommended limit: TPW-14 (480-176996-8). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

Method 537 (modified): Method 537 (modified): The "I" qualifier associated with sample B1219-W06 (480-176996-6) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

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

Organic Prep

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

Sample Summary

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-176996-1	EQUIP BLANK	Water	10/21/20 07:45	10/23/20 08:00	
480-176996-2	TPW-33R	Water	10/21/20 09:00	10/23/20 08:00	
480-176996-3	B1231-MW-03	Water	10/21/20 10:20	10/23/20 08:00	
480-176996-4	B1243-W05	Water	10/21/20 11:40	10/23/20 08:00	
480-176996-5	MW-1253 IR	Water	10/21/20 13:15	10/23/20 08:00	
480-176996-6	B1219-W06	Water	10/21/20 14:00	10/23/20 08:00	
480-176996-7	B-54 B1266-W12	Water	10/21/20 15:10	10/23/20 08:00	
480-176996-8	TPW-14	Water	10/21/20 16:55	10/23/20 08:00	
480-176996-9	DUPLICATE	Water	10/21/20 00:00	10/23/20 08:00	

Detection Summary

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

Client Sample ID: EQUIP BLANK

Lab Sample ID: 480-176996-1

No Detections.

Client Sample ID: TPW-33R

Lab Sample ID: 480-176996-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.8	J	4.3	0.97	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.75	J	1.7	0.71	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.50	J	1.7	0.39	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.3	J	1.7	0.84	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.71	J	1.7	0.54	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.8		1.7	0.57	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	6.0		1.7	0.74	ng/L	1		537 (modified)	Total/NA

Client Sample ID: B1231-MW-03

Lab Sample ID: 480-176996-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	10		4.5	1.0	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.2		1.8	0.96	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.4		1.8	0.74	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.5		1.8	0.41	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	3.3		1.8	0.88	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.0	J	1.8	0.52	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.96	J	1.8	0.56	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.5	J	1.8	0.60	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.9		1.8	0.78	ng/L	1		537 (modified)	Total/NA

Client Sample ID: B1243-W05

Lab Sample ID: 480-176996-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.0	J	4.2	0.95	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.44	J	1.7	0.39	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	4.2		1.7	0.83	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	5.0		1.7	0.57	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	11		1.7	0.73	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-1253 IR

Lab Sample ID: 480-176996-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	1.8		1.7	0.74	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.1	J	4.2	0.61	ng/L	1		537 (modified)	Total/NA

Client Sample ID: B1219-W06

Lab Sample ID: 480-176996-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	7.4		4.2	0.95	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.60	J I	1.7	0.39	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.3	J	1.7	0.82	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.71	J	1.7	0.53	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.94	J	1.7	0.73	ng/L	1		537 (modified)	Total/NA

Client Sample ID: B-54 B1266-W12

Lab Sample ID: 480-176996-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	4.9		4.4	0.99	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Detection Summary

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

Client Sample ID: B-54 B1266-W12 (Continued)

Lab Sample ID: 480-176996-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	0.54	J	1.7	0.40	ng/L	1			537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.7		1.7	0.86	ng/L	1			537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.0	J	1.7	0.55	ng/L	1			537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.1	J	1.7	0.58	ng/L	1			537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.5		1.7	0.76	ng/L	1			537 (modified)	Total/NA

Client Sample ID: TPW-14

Lab Sample ID: 480-176996-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Perfluorododecanoic acid (PFDoA)	0.62	J	1.8	0.41	ng/L	1			537 (modified)	Total/NA

Client Sample ID: DUPLICATE

Lab Sample ID: 480-176996-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	10		4.3	0.98	ng/L	1			537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.2		1.7	0.93	ng/L	1			537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.4		1.7	0.72	ng/L	1			537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.8		1.7	0.40	ng/L	1			537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	3.5		1.7	0.85	ng/L	1			537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.1	J	1.7	0.50	ng/L	1			537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.1	J	1.7	0.55	ng/L	1			537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.3	J	1.7	0.58	ng/L	1			537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.0		1.7	0.75	ng/L	1			537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Method Summary

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

Method	Method Description	Protocol	Laboratory
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL BUR
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
3535	Solid-Phase Extraction (SPE)	SW846	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Client Sample Results

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

Client Sample ID: EQUIP BLANK

Lab Sample ID: 480-176996-1

Date Collected: 10/21/20 07:45

Matrix: Water

Date Received: 10/23/20 08:00

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		10/26/20 08:16	10/28/20 22:15	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	31		15 - 110				10/26/20 08:16	10/28/20 22:15	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.4	1.0	ng/L		10/27/20 09:15	10/27/20 19:17	1
Perfluoropentanoic acid (PFPeA)	ND		1.8	0.95	ng/L		10/27/20 09:15	10/27/20 19:17	1
Perfluorohexanoic acid (PFHxA)	ND		1.8	0.73	ng/L		10/27/20 09:15	10/27/20 19:17	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8	0.41	ng/L		10/27/20 09:15	10/27/20 19:17	1
Perfluorooctanoic acid (PFOA)	ND		1.8	0.87	ng/L		10/27/20 09:15	10/27/20 19:17	1
Perfluorononanoic acid (PFNA)	ND		1.8	0.51	ng/L		10/27/20 09:15	10/27/20 19:17	1
Perfluorodecanoic acid (PFDA)	ND		1.8	0.41	ng/L		10/27/20 09:15	10/27/20 19:17	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.64	ng/L		10/27/20 09:15	10/27/20 19:17	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	0.41	ng/L		10/27/20 09:15	10/27/20 19:17	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	0.38	ng/L		10/27/20 09:15	10/27/20 19:17	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	0.52	ng/L		10/27/20 09:15	10/27/20 19:17	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8	0.56	ng/L		10/27/20 09:15	10/27/20 19:17	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	0.59	ng/L		10/27/20 09:15	10/27/20 19:17	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	0.34	ng/L		10/27/20 09:15	10/27/20 19:17	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8	0.77	ng/L		10/27/20 09:15	10/27/20 19:17	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.42	ng/L		10/27/20 09:15	10/27/20 19:17	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.8	0.50	ng/L		10/27/20 09:15	10/27/20 19:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4	0.70	ng/L		10/27/20 09:15	10/27/20 19:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4	0.82	ng/L		10/27/20 09:15	10/27/20 19:17	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.4	0.64	ng/L		10/27/20 09:15	10/27/20 19:17	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.8	0.58	ng/L		10/27/20 09:15	10/27/20 19:17	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	103		50 - 150				10/27/20 09:15	10/27/20 19:17	1
13C4 PFHpA	108		50 - 150				10/27/20 09:15	10/27/20 19:17	1
13C4 PFOA	94		50 - 150				10/27/20 09:15	10/27/20 19:17	1
13C4 PFOS	99		50 - 150				10/27/20 09:15	10/27/20 19:17	1
13C5 PFNA	97		50 - 150				10/27/20 09:15	10/27/20 19:17	1
13C4 PFBA	111		25 - 150				10/27/20 09:15	10/27/20 19:17	1
13C2 PFHxA	108		50 - 150				10/27/20 09:15	10/27/20 19:17	1
13C2 PFDA	91		50 - 150				10/27/20 09:15	10/27/20 19:17	1
13C2 PFUnA	88		50 - 150				10/27/20 09:15	10/27/20 19:17	1
13C2 PFDoA	77		50 - 150				10/27/20 09:15	10/27/20 19:17	1
13C8 FOSA	59		25 - 150				10/27/20 09:15	10/27/20 19:17	1
13C5 PFPeA	112		25 - 150				10/27/20 09:15	10/27/20 19:17	1
13C2 PFTeDA	70		50 - 150				10/27/20 09:15	10/27/20 19:17	1
d3-NMeFOSAA	87		50 - 150				10/27/20 09:15	10/27/20 19:17	1
d5-NEtFOSAA	93		50 - 150				10/27/20 09:15	10/27/20 19:17	1
M2-6:2 FTS	101		25 - 150				10/27/20 09:15	10/27/20 19:17	1
M2-8:2 FTS	103		25 - 150				10/27/20 09:15	10/27/20 19:17	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

Client Sample ID: EQUIP BLANK

Lab Sample ID: 480-176996-1

Date Collected: 10/21/20 07:45

Matrix: Water

Date Received: 10/23/20 08:00

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFBS	101		50 - 150	10/27/20 09:15	10/27/20 19:17	1

Client Sample ID: TPW-33R

Lab Sample ID: 480-176996-2

Date Collected: 10/21/20 09:00

Matrix: Water

Date Received: 10/23/20 08:00

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.096	ug/L		10/26/20 08:16	10/30/20 11:52	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	30		15 - 110				10/26/20 08:16	10/30/20 11:52	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.8	J	4.3	0.97	ng/L		10/27/20 09:15	10/27/20 19:25	1
Perfluoropentanoic acid (PFPeA)	ND		1.7	0.92	ng/L		10/27/20 09:15	10/27/20 19:25	1
Perfluorohexanoic acid (PFHxA)	0.75	J	1.7	0.71	ng/L		10/27/20 09:15	10/27/20 19:25	1
Perfluoroheptanoic acid (PFHpA)	0.50	J	1.7	0.39	ng/L		10/27/20 09:15	10/27/20 19:25	1
Perfluorooctanoic acid (PFOA)	1.3	J	1.7	0.84	ng/L		10/27/20 09:15	10/27/20 19:25	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.50	ng/L		10/27/20 09:15	10/27/20 19:25	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.39	ng/L		10/27/20 09:15	10/27/20 19:25	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.62	ng/L		10/27/20 09:15	10/27/20 19:25	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.39	ng/L		10/27/20 09:15	10/27/20 19:25	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.37	ng/L		10/27/20 09:15	10/27/20 19:25	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.50	ng/L		10/27/20 09:15	10/27/20 19:25	1
Perfluorobutanesulfonic acid (PFBS)	0.71	J	1.7	0.54	ng/L		10/27/20 09:15	10/27/20 19:25	1
Perfluorohexanesulfonic acid (PFHxS)	3.8		1.7	0.57	ng/L		10/27/20 09:15	10/27/20 19:25	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.33	ng/L		10/27/20 09:15	10/27/20 19:25	1
Perfluorooctanesulfonic acid (PFOS)	6.0		1.7	0.74	ng/L		10/27/20 09:15	10/27/20 19:25	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.41	ng/L		10/27/20 09:15	10/27/20 19:25	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.49	ng/L		10/27/20 09:15	10/27/20 19:25	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.3	0.67	ng/L		10/27/20 09:15	10/27/20 19:25	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.3	0.79	ng/L		10/27/20 09:15	10/27/20 19:25	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.3	0.61	ng/L		10/27/20 09:15	10/27/20 19:25	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.56	ng/L		10/27/20 09:15	10/27/20 19:25	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	98		50 - 150				10/27/20 09:15	10/27/20 19:25	1
13C4 PFHpA	99		50 - 150				10/27/20 09:15	10/27/20 19:25	1
13C4 PFOA	94		50 - 150				10/27/20 09:15	10/27/20 19:25	1
13C4 PFOS	101		50 - 150				10/27/20 09:15	10/27/20 19:25	1
13C5 PFNA	93		50 - 150				10/27/20 09:15	10/27/20 19:25	1
13C4 PFBA	84		25 - 150				10/27/20 09:15	10/27/20 19:25	1
13C2 PFHxA	104		50 - 150				10/27/20 09:15	10/27/20 19:25	1
13C2 PFDA	84		50 - 150				10/27/20 09:15	10/27/20 19:25	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

Client Sample ID: TPW-33R

Lab Sample ID: 480-176996-2

Date Collected: 10/21/20 09:00

Matrix: Water

Date Received: 10/23/20 08:00

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFUnA	82		50 - 150	10/27/20 09:15	10/27/20 19:25	1
13C2 PFDoA	69		50 - 150	10/27/20 09:15	10/27/20 19:25	1
13C8 FOSA	84		25 - 150	10/27/20 09:15	10/27/20 19:25	1
13C5 PFPeA	96		25 - 150	10/27/20 09:15	10/27/20 19:25	1
13C2 PFTeDA	71		50 - 150	10/27/20 09:15	10/27/20 19:25	1
d3-NMeFOSAA	75		50 - 150	10/27/20 09:15	10/27/20 19:25	1
d5-NEtFOSAA	82		50 - 150	10/27/20 09:15	10/27/20 19:25	1
M2-6:2 FTS	102		25 - 150	10/27/20 09:15	10/27/20 19:25	1
M2-8:2 FTS	95		25 - 150	10/27/20 09:15	10/27/20 19:25	1
13C3 PFBS	93		50 - 150	10/27/20 09:15	10/27/20 19:25	1

Client Sample ID: B1231-MW-03

Lab Sample ID: 480-176996-3

Date Collected: 10/21/20 10:20

Matrix: Water

Date Received: 10/23/20 08:00

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		10/26/20 08:16	10/28/20 22:39	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	33		15 - 110				10/26/20 08:16	10/28/20 22:39	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	10		4.5	1.0	ng/L		10/27/20 09:15	10/27/20 19:58	1
Perfluoropentanoic acid (PFPeA)	2.2		1.8	0.96	ng/L		10/27/20 09:15	10/27/20 19:58	1
Perfluorohexanoic acid (PFHxA)	2.4		1.8	0.74	ng/L		10/27/20 09:15	10/27/20 19:58	1
Perfluoroheptanoic acid (PFHpA)	2.5		1.8	0.41	ng/L		10/27/20 09:15	10/27/20 19:58	1
Perfluorooctanoic acid (PFOA)	3.3		1.8	0.88	ng/L		10/27/20 09:15	10/27/20 19:58	1
Perfluorononanoic acid (PFNA)	1.0 J		1.8	0.52	ng/L		10/27/20 09:15	10/27/20 19:58	1
Perfluorodecanoic acid (PFDA)	ND		1.8	0.41	ng/L		10/27/20 09:15	10/27/20 19:58	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.65	ng/L		10/27/20 09:15	10/27/20 19:58	1
Perfluorododecanoic acid (PFDoA)	ND		1.8	0.41	ng/L		10/27/20 09:15	10/27/20 19:58	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	0.38	ng/L		10/27/20 09:15	10/27/20 19:58	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	0.53	ng/L		10/27/20 09:15	10/27/20 19:58	1
Perfluorobutanesulfonic acid (PFBS)	0.96 J		1.8	0.56	ng/L		10/27/20 09:15	10/27/20 19:58	1
Perfluorohexanesulfonic acid (PFHxS)	1.5 J		1.8	0.60	ng/L		10/27/20 09:15	10/27/20 19:58	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	0.35	ng/L		10/27/20 09:15	10/27/20 19:58	1
Perfluorooctanesulfonic acid (PFOS)	1.9		1.8	0.78	ng/L		10/27/20 09:15	10/27/20 19:58	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.43	ng/L		10/27/20 09:15	10/27/20 19:58	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.8	0.51	ng/L		10/27/20 09:15	10/27/20 19:58	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5	0.71	ng/L		10/27/20 09:15	10/27/20 19:58	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5	0.83	ng/L		10/27/20 09:15	10/27/20 19:58	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.5	0.64	ng/L		10/27/20 09:15	10/27/20 19:58	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.8	0.59	ng/L		10/27/20 09:15	10/27/20 19:58	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

Client Sample ID: B1231-MW-03

Lab Sample ID: 480-176996-3

Date Collected: 10/21/20 10:20

Matrix: Water

Date Received: 10/23/20 08:00

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	97		50 - 150	10/27/20 09:15	10/27/20 19:58	1
13C4 PFHpA	99		50 - 150	10/27/20 09:15	10/27/20 19:58	1
13C4 PFOA	97		50 - 150	10/27/20 09:15	10/27/20 19:58	1
13C4 PFOS	100		50 - 150	10/27/20 09:15	10/27/20 19:58	1
13C5 PFNA	97		50 - 150	10/27/20 09:15	10/27/20 19:58	1
13C4 PFBA	68		25 - 150	10/27/20 09:15	10/27/20 19:58	1
13C2 PFHxA	92		50 - 150	10/27/20 09:15	10/27/20 19:58	1
13C2 PFDA	89		50 - 150	10/27/20 09:15	10/27/20 19:58	1
13C2 PFUnA	90		50 - 150	10/27/20 09:15	10/27/20 19:58	1
13C2 PFDoA	77		50 - 150	10/27/20 09:15	10/27/20 19:58	1
13C8 FOSA	89		25 - 150	10/27/20 09:15	10/27/20 19:58	1
13C5 PFPeA	85		25 - 150	10/27/20 09:15	10/27/20 19:58	1
13C2 PFTeDA	77		50 - 150	10/27/20 09:15	10/27/20 19:58	1
d3-NMeFOSAA	81		50 - 150	10/27/20 09:15	10/27/20 19:58	1
d5-NEtFOSAA	88		50 - 150	10/27/20 09:15	10/27/20 19:58	1
M2-6:2 FTS	107		25 - 150	10/27/20 09:15	10/27/20 19:58	1
M2-8:2 FTS	95		25 - 150	10/27/20 09:15	10/27/20 19:58	1
13C3 PFBS	92		50 - 150	10/27/20 09:15	10/27/20 19:58	1

Client Sample ID: B1243-W05

Lab Sample ID: 480-176996-4

Date Collected: 10/21/20 11:40

Matrix: Water

Date Received: 10/23/20 08:00

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		10/26/20 08:16	10/28/20 23:02	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	33		15 - 110				10/26/20 08:16	10/28/20 23:02	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	2.0	J	4.2	0.95	ng/L		10/27/20 09:15	10/27/20 20:07	1
Perfluoropentanoic acid (PFPeA)	ND		1.7	0.91	ng/L		10/27/20 09:15	10/27/20 20:07	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	0.70	ng/L		10/27/20 09:15	10/27/20 20:07	1
Perfluoroheptanoic acid (PFHpA)	0.44	J	1.7	0.39	ng/L		10/27/20 09:15	10/27/20 20:07	1
Perfluorooctanoic acid (PFOA)	4.2		1.7	0.83	ng/L		10/27/20 09:15	10/27/20 20:07	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.49	ng/L		10/27/20 09:15	10/27/20 20:07	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.39	ng/L		10/27/20 09:15	10/27/20 20:07	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.62	ng/L		10/27/20 09:15	10/27/20 20:07	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.39	ng/L		10/27/20 09:15	10/27/20 20:07	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.36	ng/L		10/27/20 09:15	10/27/20 20:07	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.50	ng/L		10/27/20 09:15	10/27/20 20:07	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.53	ng/L		10/27/20 09:15	10/27/20 20:07	1
Perfluorohexanesulfonic acid (PFHxS)	5.0		1.7	0.57	ng/L		10/27/20 09:15	10/27/20 20:07	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.33	ng/L		10/27/20 09:15	10/27/20 20:07	1
Perfluorooctanesulfonic acid (PFOS)	11		1.7	0.73	ng/L		10/27/20 09:15	10/27/20 20:07	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.40	ng/L		10/27/20 09:15	10/27/20 20:07	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.48	ng/L		10/27/20 09:15	10/27/20 20:07	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

Client Sample ID: B1243-W05

Lab Sample ID: 480-176996-4

Date Collected: 10/21/20 11:40

Matrix: Water

Date Received: 10/23/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.2	0.67	ng/L		10/27/20 09:15	10/27/20 20:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.2	0.78	ng/L		10/27/20 09:15	10/27/20 20:07	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.2	0.61	ng/L		10/27/20 09:15	10/27/20 20:07	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.56	ng/L		10/27/20 09:15	10/27/20 20:07	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	96		50 - 150				10/27/20 09:15	10/27/20 20:07	1
13C4 PFHpA	101		50 - 150				10/27/20 09:15	10/27/20 20:07	1
13C4 PFOA	89		50 - 150				10/27/20 09:15	10/27/20 20:07	1
13C4 PFOS	71		50 - 150				10/27/20 09:15	10/27/20 20:07	1
13C5 PFNA	77		50 - 150				10/27/20 09:15	10/27/20 20:07	1
13C4 PFBA	91		25 - 150				10/27/20 09:15	10/27/20 20:07	1
13C2 PFHxA	97		50 - 150				10/27/20 09:15	10/27/20 20:07	1
13C2 PFDA	55		50 - 150				10/27/20 09:15	10/27/20 20:07	1
13C2 PFUnA	43	*5	50 - 150				10/27/20 09:15	10/27/20 20:07	1
13C2 PFDoA	37	*5	50 - 150				10/27/20 09:15	10/27/20 20:07	1
13C8 FOSA	64		25 - 150				10/27/20 09:15	10/27/20 20:07	1
13C5 PFPeA	99		25 - 150				10/27/20 09:15	10/27/20 20:07	1
13C2 PFTeDA	40	*5	50 - 150				10/27/20 09:15	10/27/20 20:07	1
d3-NMeFOSAA	47	*5	50 - 150				10/27/20 09:15	10/27/20 20:07	1
d5-NEtFOSAA	41	*5	50 - 150				10/27/20 09:15	10/27/20 20:07	1
M2-6:2 FTS	100		25 - 150				10/27/20 09:15	10/27/20 20:07	1
M2-8:2 FTS	58		25 - 150				10/27/20 09:15	10/27/20 20:07	1
13C3 PFBS	93		50 - 150				10/27/20 09:15	10/27/20 20:07	1

Client Sample ID: MW-1253 IR

Lab Sample ID: 480-176996-5

Date Collected: 10/21/20 13:15

Matrix: Water

Date Received: 10/23/20 08:00

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		10/26/20 08:16	10/28/20 23:25	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	31		15 - 110				10/26/20 08:16	10/28/20 23:25	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.2	0.96	ng/L		10/27/20 09:15	10/27/20 20:15	1
Perfluoropentanoic acid (PFPeA)	ND		1.7	0.92	ng/L		10/27/20 09:15	10/27/20 20:15	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	0.70	ng/L		10/27/20 09:15	10/27/20 20:15	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	0.39	ng/L		10/27/20 09:15	10/27/20 20:15	1
Perfluorooctanoic acid (PFOA)	ND		1.7	0.83	ng/L		10/27/20 09:15	10/27/20 20:15	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.49	ng/L		10/27/20 09:15	10/27/20 20:15	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.39	ng/L		10/27/20 09:15	10/27/20 20:15	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.62	ng/L		10/27/20 09:15	10/27/20 20:15	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.39	ng/L		10/27/20 09:15	10/27/20 20:15	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.36	ng/L		10/27/20 09:15	10/27/20 20:15	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.50	ng/L		10/27/20 09:15	10/27/20 20:15	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

Client Sample ID: MW-1253 IR

Lab Sample ID: 480-176996-5

Date Collected: 10/21/20 13:15

Matrix: Water

Date Received: 10/23/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.53	ng/L		10/27/20 09:15	10/27/20 20:15	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.57	ng/L		10/27/20 09:15	10/27/20 20:15	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.33	ng/L		10/27/20 09:15	10/27/20 20:15	1
Perfluorooctanesulfonic acid (PFOS)	1.8		1.7	0.74	ng/L		10/27/20 09:15	10/27/20 20:15	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.41	ng/L		10/27/20 09:15	10/27/20 20:15	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.48	ng/L		10/27/20 09:15	10/27/20 20:15	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.2	0.67	ng/L		10/27/20 09:15	10/27/20 20:15	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.2	0.79	ng/L		10/27/20 09:15	10/27/20 20:15	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.1 J		4.2	0.61	ng/L		10/27/20 09:15	10/27/20 20:15	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.56	ng/L		10/27/20 09:15	10/27/20 20:15	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	102		50 - 150	10/27/20 09:15	10/27/20 20:15	1
13C4 PFHpA	102		50 - 150	10/27/20 09:15	10/27/20 20:15	1
13C4 PFOA	95		50 - 150	10/27/20 09:15	10/27/20 20:15	1
13C4 PFOS	96		50 - 150	10/27/20 09:15	10/27/20 20:15	1
13C5 PFNA	94		50 - 150	10/27/20 09:15	10/27/20 20:15	1
13C4 PFBA	96		25 - 150	10/27/20 09:15	10/27/20 20:15	1
13C2 PFHxA	100		50 - 150	10/27/20 09:15	10/27/20 20:15	1
13C2 PFDA	86		50 - 150	10/27/20 09:15	10/27/20 20:15	1
13C2 PFUnA	89		50 - 150	10/27/20 09:15	10/27/20 20:15	1
13C2 PFDoA	61		50 - 150	10/27/20 09:15	10/27/20 20:15	1
13C8 FOSA	83		25 - 150	10/27/20 09:15	10/27/20 20:15	1
13C5 PFPeA	102		25 - 150	10/27/20 09:15	10/27/20 20:15	1
13C2 PFTeDA	59		50 - 150	10/27/20 09:15	10/27/20 20:15	1
d3-NMeFOSAA	74		50 - 150	10/27/20 09:15	10/27/20 20:15	1
d5-NEtFOSAA	82		50 - 150	10/27/20 09:15	10/27/20 20:15	1
M2-6:2 FTS	109		25 - 150	10/27/20 09:15	10/27/20 20:15	1
M2-8:2 FTS	101		25 - 150	10/27/20 09:15	10/27/20 20:15	1
13C3 PFBS	96		50 - 150	10/27/20 09:15	10/27/20 20:15	1

Client Sample ID: B1219-W06

Lab Sample ID: 480-176996-6

Date Collected: 10/21/20 14:00

Matrix: Water

Date Received: 10/23/20 08:00

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		10/26/20 08:16	10/28/20 23:49	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	33		15 - 110				10/26/20 08:16	10/28/20 23:49	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	7.4		4.2	0.95	ng/L		10/27/20 09:15	10/27/20 20:23	1
Perfluoropentanoic acid (PFPeA)	ND		1.7	0.90	ng/L		10/27/20 09:15	10/27/20 20:23	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	0.69	ng/L		10/27/20 09:15	10/27/20 20:23	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

Client Sample ID: B1219-W06

Lab Sample ID: 480-176996-6

Date Collected: 10/21/20 14:00

Matrix: Water

Date Received: 10/23/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid (PFHpA)	0.60	J I	1.7	0.39	ng/L		10/27/20 09:15	10/27/20 20:23	1
Perfluorooctanoic acid (PFOA)	1.3	J	1.7	0.82	ng/L		10/27/20 09:15	10/27/20 20:23	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.49	ng/L		10/27/20 09:15	10/27/20 20:23	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.39	ng/L		10/27/20 09:15	10/27/20 20:23	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.61	ng/L		10/27/20 09:15	10/27/20 20:23	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.39	ng/L		10/27/20 09:15	10/27/20 20:23	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.36	ng/L		10/27/20 09:15	10/27/20 20:23	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.49	ng/L		10/27/20 09:15	10/27/20 20:23	1
Perfluorobutanesulfonic acid (PFBS)	0.71	J	1.7	0.53	ng/L		10/27/20 09:15	10/27/20 20:23	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.56	ng/L		10/27/20 09:15	10/27/20 20:23	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.33	ng/L		10/27/20 09:15	10/27/20 20:23	1
Perfluorooctanesulfonic acid (PFOS)	0.94	J	1.7	0.73	ng/L		10/27/20 09:15	10/27/20 20:23	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.40	ng/L		10/27/20 09:15	10/27/20 20:23	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.48	ng/L		10/27/20 09:15	10/27/20 20:23	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.2	0.66	ng/L		10/27/20 09:15	10/27/20 20:23	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.2	0.78	ng/L		10/27/20 09:15	10/27/20 20:23	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.2	0.60	ng/L		10/27/20 09:15	10/27/20 20:23	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.55	ng/L		10/27/20 09:15	10/27/20 20:23	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	100		50 - 150				10/27/20 09:15	10/27/20 20:23	1
13C4 PFHpA	102		50 - 150				10/27/20 09:15	10/27/20 20:23	1
13C4 PFOA	93		50 - 150				10/27/20 09:15	10/27/20 20:23	1
13C4 PFOS	85		50 - 150				10/27/20 09:15	10/27/20 20:23	1
13C5 PFNA	85		50 - 150				10/27/20 09:15	10/27/20 20:23	1
13C4 PFBA	95		25 - 150				10/27/20 09:15	10/27/20 20:23	1
13C2 PFHxA	105		50 - 150				10/27/20 09:15	10/27/20 20:23	1
13C2 PFDA	61		50 - 150				10/27/20 09:15	10/27/20 20:23	1
13C2 PFUnA	50		50 - 150				10/27/20 09:15	10/27/20 20:23	1
13C2 PFDoA	38	*5	50 - 150				10/27/20 09:15	10/27/20 20:23	1
13C8 FOSA	71		25 - 150				10/27/20 09:15	10/27/20 20:23	1
13C5 PFPeA	102		25 - 150				10/27/20 09:15	10/27/20 20:23	1
13C2 PFTeDA	41	*5	50 - 150				10/27/20 09:15	10/27/20 20:23	1
d3-NMeFOSAA	53		50 - 150				10/27/20 09:15	10/27/20 20:23	1
d5-NEtFOSAA	46	*5	50 - 150				10/27/20 09:15	10/27/20 20:23	1
M2-6:2 FTS	107		25 - 150				10/27/20 09:15	10/27/20 20:23	1
M2-8:2 FTS	68		25 - 150				10/27/20 09:15	10/27/20 20:23	1
13C3 PFBS	96		50 - 150				10/27/20 09:15	10/27/20 20:23	1

Client Sample Results

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

Client Sample ID: B-54 B1266-W12

Lab Sample ID: 480-176996-7

Date Collected: 10/21/20 15:10

Matrix: Water

Date Received: 10/23/20 08:00

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		10/26/20 08:16	10/29/20 01:32	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	30		15 - 110				10/26/20 08:16	10/29/20 01:32	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.9		4.4	0.99	ng/L		10/27/20 09:15	10/27/20 20:32	1
Perfluoropentanoic acid (PFPeA)	ND		1.7	0.94	ng/L		10/27/20 09:15	10/27/20 20:32	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	0.72	ng/L		10/27/20 09:15	10/27/20 20:32	1
Perfluoroheptanoic acid (PFHpA)	0.54	J	1.7	0.40	ng/L		10/27/20 09:15	10/27/20 20:32	1
Perfluorooctanoic acid (PFOA)	1.7		1.7	0.86	ng/L		10/27/20 09:15	10/27/20 20:32	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.51	ng/L		10/27/20 09:15	10/27/20 20:32	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.40	ng/L		10/27/20 09:15	10/27/20 20:32	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.64	ng/L		10/27/20 09:15	10/27/20 20:32	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.40	ng/L		10/27/20 09:15	10/27/20 20:32	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.38	ng/L		10/27/20 09:15	10/27/20 20:32	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.51	ng/L		10/27/20 09:15	10/27/20 20:32	1
Perfluorobutanesulfonic acid (PFBS)	1.0	J	1.7	0.55	ng/L		10/27/20 09:15	10/27/20 20:32	1
Perfluorohexanesulfonic acid (PFHxS)	1.1	J	1.7	0.58	ng/L		10/27/20 09:15	10/27/20 20:32	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.34	ng/L		10/27/20 09:15	10/27/20 20:32	1
Perfluorooctanesulfonic acid (PFOS)	4.5		1.7	0.76	ng/L		10/27/20 09:15	10/27/20 20:32	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.42	ng/L		10/27/20 09:15	10/27/20 20:32	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.50	ng/L		10/27/20 09:15	10/27/20 20:32	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4	0.69	ng/L		10/27/20 09:15	10/27/20 20:32	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4	0.81	ng/L		10/27/20 09:15	10/27/20 20:32	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.4	0.63	ng/L		10/27/20 09:15	10/27/20 20:32	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.58	ng/L		10/27/20 09:15	10/27/20 20:32	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	99		50 - 150				10/27/20 09:15	10/27/20 20:32	1
13C4 PFHpA	107		50 - 150				10/27/20 09:15	10/27/20 20:32	1
13C4 PFOA	93		50 - 150				10/27/20 09:15	10/27/20 20:32	1
13C4 PFOS	77		50 - 150				10/27/20 09:15	10/27/20 20:32	1
13C5 PFNA	82		50 - 150				10/27/20 09:15	10/27/20 20:32	1
13C4 PFBA	97		25 - 150				10/27/20 09:15	10/27/20 20:32	1
13C2 PFHxA	104		50 - 150				10/27/20 09:15	10/27/20 20:32	1
13C2 PFDA	58		50 - 150				10/27/20 09:15	10/27/20 20:32	1
13C2 PFUnA	55		50 - 150				10/27/20 09:15	10/27/20 20:32	1
13C2 PFDoA	43	*5	50 - 150				10/27/20 09:15	10/27/20 20:32	1
13C8 FOSA	71		25 - 150				10/27/20 09:15	10/27/20 20:32	1
13C5 PFPeA	101		25 - 150				10/27/20 09:15	10/27/20 20:32	1
13C2 PFTeDA	45	*5	50 - 150				10/27/20 09:15	10/27/20 20:32	1
d3-NMeFOSAA	55		50 - 150				10/27/20 09:15	10/27/20 20:32	1
d5-NEtFOSAA	52		50 - 150				10/27/20 09:15	10/27/20 20:32	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

Client Sample ID: B-54 B1266-W12

Lab Sample ID: 480-176996-7

Date Collected: 10/21/20 15:10

Matrix: Water

Date Received: 10/23/20 08:00

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	101		25 - 150	10/27/20 09:15	10/27/20 20:32	1
M2-8:2 FTS	66		25 - 150	10/27/20 09:15	10/27/20 20:32	1
13C3 PFBS	98		50 - 150	10/27/20 09:15	10/27/20 20:32	1

Client Sample ID: TPW-14

Lab Sample ID: 480-176996-8

Date Collected: 10/21/20 16:55

Matrix: Water

Date Received: 10/23/20 08:00

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.097	ug/L		10/26/20 08:16	10/29/20 01:56	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	32		15 - 110				10/26/20 08:16	10/29/20 01:56	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.4	1.0	ng/L		10/27/20 09:15	10/27/20 20:40	1
Perfluoropentanoic acid (PFPeA)	ND		1.8	0.96	ng/L		10/27/20 09:15	10/27/20 20:40	1
Perfluorohexanoic acid (PFHxA)	ND		1.8	0.74	ng/L		10/27/20 09:15	10/27/20 20:40	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8	0.41	ng/L		10/27/20 09:15	10/27/20 20:40	1
Perfluorooctanoic acid (PFOA)	ND		1.8	0.87	ng/L		10/27/20 09:15	10/27/20 20:40	1
Perfluorononanoic acid (PFNA)	ND		1.8	0.52	ng/L		10/27/20 09:15	10/27/20 20:40	1
Perfluorodecanoic acid (PFDA)	ND		1.8	0.41	ng/L		10/27/20 09:15	10/27/20 20:40	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.65	ng/L		10/27/20 09:15	10/27/20 20:40	1
Perfluorododecanoic acid (PFDoA)	0.62	J	1.8	0.41	ng/L		10/27/20 09:15	10/27/20 20:40	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8	0.38	ng/L		10/27/20 09:15	10/27/20 20:40	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8	0.52	ng/L		10/27/20 09:15	10/27/20 20:40	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8	0.56	ng/L		10/27/20 09:15	10/27/20 20:40	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	0.60	ng/L		10/27/20 09:15	10/27/20 20:40	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	0.35	ng/L		10/27/20 09:15	10/27/20 20:40	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8	0.77	ng/L		10/27/20 09:15	10/27/20 20:40	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.43	ng/L		10/27/20 09:15	10/27/20 20:40	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.8	0.51	ng/L		10/27/20 09:15	10/27/20 20:40	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4	0.70	ng/L		10/27/20 09:15	10/27/20 20:40	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4	0.83	ng/L		10/27/20 09:15	10/27/20 20:40	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.4	0.64	ng/L		10/27/20 09:15	10/27/20 20:40	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.8	0.59	ng/L		10/27/20 09:15	10/27/20 20:40	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	90		50 - 150				10/27/20 09:15	10/27/20 20:40	1
13C4 PFHpA	89		50 - 150				10/27/20 09:15	10/27/20 20:40	1
13C4 PFOA	82		50 - 150				10/27/20 09:15	10/27/20 20:40	1
13C4 PFOS	49	*5	50 - 150				10/27/20 09:15	10/27/20 20:40	1
13C5 PFNA	61		50 - 150				10/27/20 09:15	10/27/20 20:40	1
13C4 PFBA	87		25 - 150				10/27/20 09:15	10/27/20 20:40	1
13C2 PFHxA	97		50 - 150				10/27/20 09:15	10/27/20 20:40	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

Client Sample ID: TPW-14

Lab Sample ID: 480-176996-8

Date Collected: 10/21/20 16:55

Matrix: Water

Date Received: 10/23/20 08:00

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFDA	34	*5	50 - 150	10/27/20 09:15	10/27/20 20:40	1
13C2 PFUnA	25	*5	50 - 150	10/27/20 09:15	10/27/20 20:40	1
13C2 PFDoA	19	*5	50 - 150	10/27/20 09:15	10/27/20 20:40	1
13C8 FOSA	55		25 - 150	10/27/20 09:15	10/27/20 20:40	1
13C5 PFPeA	95		25 - 150	10/27/20 09:15	10/27/20 20:40	1
13C2 PFTeDA	21	*5	50 - 150	10/27/20 09:15	10/27/20 20:40	1
d3-NMeFOSAA	29	*5	50 - 150	10/27/20 09:15	10/27/20 20:40	1
d5-NEtFOSAA	21	*5	50 - 150	10/27/20 09:15	10/27/20 20:40	1
M2-6:2 FTS	84		25 - 150	10/27/20 09:15	10/27/20 20:40	1
M2-8:2 FTS	35		25 - 150	10/27/20 09:15	10/27/20 20:40	1
13C3 PFBS	89		50 - 150	10/27/20 09:15	10/27/20 20:40	1

Client Sample ID: DUPLICATE

Lab Sample ID: 480-176996-9

Date Collected: 10/21/20 00:00

Matrix: Water

Date Received: 10/23/20 08:00

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		10/26/20 08:16	10/29/20 02:19	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	32		15 - 110				10/26/20 08:16	10/29/20 02:19	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	10		4.3	0.98	ng/L		10/27/20 09:15	10/27/20 20:48	1
Perfluoropentanoic acid (PFPeA)	2.2		1.7	0.93	ng/L		10/27/20 09:15	10/27/20 20:48	1
Perfluorohexanoic acid (PFHxA)	2.4		1.7	0.72	ng/L		10/27/20 09:15	10/27/20 20:48	1
Perfluoroheptanoic acid (PFHpA)	2.8		1.7	0.40	ng/L		10/27/20 09:15	10/27/20 20:48	1
Perfluorooctanoic acid (PFOA)	3.5		1.7	0.85	ng/L		10/27/20 09:15	10/27/20 20:48	1
Perfluorononanoic acid (PFNA)	1.1	J	1.7	0.50	ng/L		10/27/20 09:15	10/27/20 20:48	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.40	ng/L		10/27/20 09:15	10/27/20 20:48	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.63	ng/L		10/27/20 09:15	10/27/20 20:48	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.40	ng/L		10/27/20 09:15	10/27/20 20:48	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.37	ng/L		10/27/20 09:15	10/27/20 20:48	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.51	ng/L		10/27/20 09:15	10/27/20 20:48	1
Perfluorobutanesulfonic acid (PFBS)	1.1	J	1.7	0.55	ng/L		10/27/20 09:15	10/27/20 20:48	1
Perfluorohexanesulfonic acid (PFHxS)	1.3	J	1.7	0.58	ng/L		10/27/20 09:15	10/27/20 20:48	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.34	ng/L		10/27/20 09:15	10/27/20 20:48	1
Perfluorooctanesulfonic acid (PFOS)	2.0		1.7	0.75	ng/L		10/27/20 09:15	10/27/20 20:48	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.42	ng/L		10/27/20 09:15	10/27/20 20:48	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.49	ng/L		10/27/20 09:15	10/27/20 20:48	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.3	0.68	ng/L		10/27/20 09:15	10/27/20 20:48	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.3	0.81	ng/L		10/27/20 09:15	10/27/20 20:48	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.3	0.62	ng/L		10/27/20 09:15	10/27/20 20:48	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

Client Sample ID: DUPLICATE

Lab Sample ID: 480-176996-9

Date Collected: 10/21/20 00:00

Matrix: Water

Date Received: 10/23/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.57	ng/L		10/27/20 09:15	10/27/20 20:48	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	102		50 - 150				10/27/20 09:15	10/27/20 20:48	1
13C4 PFHpA	95		50 - 150				10/27/20 09:15	10/27/20 20:48	1
13C4 PFOA	91		50 - 150				10/27/20 09:15	10/27/20 20:48	1
13C4 PFOS	98		50 - 150				10/27/20 09:15	10/27/20 20:48	1
13C5 PFNA	90		50 - 150				10/27/20 09:15	10/27/20 20:48	1
13C4 PFBA	70		25 - 150				10/27/20 09:15	10/27/20 20:48	1
13C2 PFHxA	92		50 - 150				10/27/20 09:15	10/27/20 20:48	1
13C2 PFDA	88		50 - 150				10/27/20 09:15	10/27/20 20:48	1
13C2 PFUnA	86		50 - 150				10/27/20 09:15	10/27/20 20:48	1
13C2 PFDoA	68		50 - 150				10/27/20 09:15	10/27/20 20:48	1
13C8 FOSA	82		25 - 150				10/27/20 09:15	10/27/20 20:48	1
13C5 PFPeA	87		25 - 150				10/27/20 09:15	10/27/20 20:48	1
13C2 PFTeDA	72		50 - 150				10/27/20 09:15	10/27/20 20:48	1
d3-NMeFOSAA	71		50 - 150				10/27/20 09:15	10/27/20 20:48	1
d5-NEtFOSAA	83		50 - 150				10/27/20 09:15	10/27/20 20:48	1
M2-6:2 FTS	108		25 - 150				10/27/20 09:15	10/27/20 20:48	1
M2-8:2 FTS	86		25 - 150				10/27/20 09:15	10/27/20 20:48	1
13C3 PFBS	89		50 - 150				10/27/20 09:15	10/27/20 20:48	1

Isotope Dilution Summary

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (15-110)
480-176996-1	EQUIP BLANK	31
480-176996-2	TPW-33R	30
480-176996-2 MS	TPW-33R	31
480-176996-2 MSD	TPW-33R	30
480-176996-3	B1231-MW-03	33
480-176996-4	B1243-W05	33
480-176996-5	MW-1253 IR	31
480-176996-6	B1219-W06	33
480-176996-7	B-54 B1266-W12	30
480-176996-8	TPW-14	32
480-176996-9	DUPLICATE	32
LCS 480-555696/2-A	Lab Control Sample	34
MB 480-555696/1-A	Method Blank	32

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFHxS (50-150)	C4PFHA (50-150)	PFOA (50-150)	PFOS (50-150)	PFNA (50-150)	PFBA (25-150)	PFHxA (50-150)	PFDA (50-150)
480-176996-1	EQUIP BLANK	103	108	94	99	97	111	108	91
480-176996-2	TPW-33R	98	99	94	101	93	84	104	84
480-176996-2 MS	TPW-33R	102	94	92	102	93	88	121	87
480-176996-2 MSD	TPW-33R	96	95	94	89	97	79	96	85
480-176996-3	B1231-MW-03	97	99	97	100	97	68	92	89
480-176996-4	B1243-W05	96	101	89	71	77	91	97	55
480-176996-5	MW-1253 IR	102	102	95	96	94	96	100	86
480-176996-6	B1219-W06	100	102	93	85	85	95	105	61
480-176996-7	B-54 B1266-W12	99	107	93	77	82	97	104	58
480-176996-8	TPW-14	90	89	82	49 *5	61	87	97	34 *5
480-176996-9	DUPLICATE	102	95	91	98	90	70	92	88
LCS 200-160391/2-A	Lab Control Sample	104	101	94	105	90	111	105	89
MB 200-160391/1-A	Method Blank	100	101	97	107	97	109	105	92

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFUnA (50-150)	PFDaA (50-150)	PFOSA (25-150)	PFPeA (25-150)	PFTDA (50-150)	d3NMFOS (50-150)	d5NEFOS (50-150)	M262FTS (25-150)
480-176996-1	EQUIP BLANK	88	77	59	112	70	87	93	101
480-176996-2	TPW-33R	82	69	84	96	71	75	82	102
480-176996-2 MS	TPW-33R	90	75	85	103	73	78	85	101
480-176996-2 MSD	TPW-33R	82	64	84	92	61	71	74	115
480-176996-3	B1231-MW-03	90	77	89	85	77	81	88	107
480-176996-4	B1243-W05	43 *5	37 *5	64	99	40 *5	47 *5	41 *5	100
480-176996-5	MW-1253 IR	89	61	83	102	59	74	82	109
480-176996-6	B1219-W06	50	38 *5	71	102	41 *5	53	46 *5	107
480-176996-7	B-54 B1266-W12	55	43 *5	71	101	45 *5	55	52	101
480-176996-8	TPW-14	25 *5	19 *5	55	95	21 *5	29 *5	21 *5	84
480-176996-9	DUPLICATE	86	68	82	87	72	71	83	108

Eurofins TestAmerica, Buffalo

Isotope Dilution Summary

Client: New York State D.E.C.

Job ID: 480-176996-1

Project/Site: Verona Research Facility #633046

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)							
		PfUnA (50-150)	PfDoA (50-150)	PfOSA (25-150)	PfPeA (25-150)	PfTDA (50-150)	d3NMFOS (50-150)	d5NEFOS (50-150)	M262FTS (25-150)
LCS 200-160391/2-A	Lab Control Sample	91	72	47	114	74	84	82	98
MB 200-160391/1-A	Method Blank	92	83	69	111	82	84	92	106

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)	
		M282FTS (25-150)	C3PFBS (50-150)
480-176996-1	EQUIP BLANK	103	101
480-176996-2	TPW-33R	95	93
480-176996-2 MS	TPW-33R	89	101
480-176996-2 MSD	TPW-33R	109	90
480-176996-3	B1231-MW-03	95	92
480-176996-4	B1243-W05	58	93
480-176996-5	MW-1253 IR	101	96
480-176996-6	B1219-W06	68	96
480-176996-7	B-54 B1266-W12	66	98
480-176996-8	TPW-14	35	89
480-176996-9	DUPLICATE	86	89
LCS 200-160391/2-A	Lab Control Sample	104	102
MB 200-160391/1-A	Method Blank	110	102

Surrogate Legend

PFHxS = 18O2 PFHxS
 C4PFHA = 13C4 PFHpA
 PFOA = 13C4 PFOA
 PFOS = 13C4 PFOS
 PFNA = 13C5 PFNA
 PFBA = 13C4 PFBA
 PFHxA = 13C2 PFHxA
 PFDA = 13C2 PFDA
 PFUnA = 13C2 PFUnA
 PFDaA = 13C2 PFDaA
 PFOSA = 13C8 FOSA
 PFPeA = 13C5 PFPeA
 PFTDA = 13C2 PFTeDA
 d3NMFOS = d3-NMeFOSAA
 d5NEFOS = d5-NEtFOSAA
 M262FTS = M2-6:2 FTS
 M282FTS = M2-8:2 FTS
 C3PFBS = 13C3 PFBS

QC Sample Results

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 480-555696/1-A
Matrix: Water
Analysis Batch: 556213

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 555696

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		10/26/20 08:16	10/28/20 20:18	1
Isotope Dilution	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	32		15 - 110				10/26/20 08:16	10/28/20 20:18	1

Lab Sample ID: LCS 480-555696/2-A
Matrix: Water
Analysis Batch: 556213

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 555696

Analyte	LCS Result	LCS Qualifier	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,4-Dioxane			1.00	1.15		ug/L		115	40 - 140
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits						
1,4-Dioxane-d8	34		15 - 110						

Lab Sample ID: 480-176996-2 MS
Matrix: Water
Analysis Batch: 556636

Client Sample ID: TPW-33R
Prep Type: Total/NA
Prep Batch: 555696

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1,4-Dioxane	ND		0.952	1.08		ug/L		113	40 - 140
Isotope Dilution	MS %Recovery	MS Qualifier	Limits						
1,4-Dioxane-d8	31		15 - 110						

Lab Sample ID: 480-176996-2 MSD
Matrix: Water
Analysis Batch: 556636

Client Sample ID: TPW-33R
Prep Type: Total/NA
Prep Batch: 555696

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,4-Dioxane	ND		0.952	1.08		ug/L		113	40 - 140	0	20
Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits								
1,4-Dioxane-d8	30		15 - 110								

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 200-160391/1-A
Matrix: Water
Analysis Batch: 160481

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 160391

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.0	1.1	ng/L		10/27/20 09:15	10/27/20 17:38	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	1.1	ng/L		10/27/20 09:15	10/27/20 17:38	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.83	ng/L		10/27/20 09:15	10/27/20 17:38	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.46	ng/L		10/27/20 09:15	10/27/20 17:38	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.98	ng/L		10/27/20 09:15	10/27/20 17:38	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.58	ng/L		10/27/20 09:15	10/27/20 17:38	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.46	ng/L		10/27/20 09:15	10/27/20 17:38	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.73	ng/L		10/27/20 09:15	10/27/20 17:38	1

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QC Sample Results

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

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

Lab Sample ID: MB 200-160391/1-A

Matrix: Water

Analysis Batch: 160481

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 160391

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.46	ng/L		10/27/20 09:15	10/27/20 17:38	1
Perfluorotridecanoic acid (PFTrIA)	ND		2.0	0.43	ng/L		10/27/20 09:15	10/27/20 17:38	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.59	ng/L		10/27/20 09:15	10/27/20 17:38	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.63	ng/L		10/27/20 09:15	10/27/20 17:38	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.67	ng/L		10/27/20 09:15	10/27/20 17:38	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.39	ng/L		10/27/20 09:15	10/27/20 17:38	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.87	ng/L		10/27/20 09:15	10/27/20 17:38	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.48	ng/L		10/27/20 09:15	10/27/20 17:38	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.57	ng/L		10/27/20 09:15	10/27/20 17:38	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0	0.79	ng/L		10/27/20 09:15	10/27/20 17:38	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0	0.93	ng/L		10/27/20 09:15	10/27/20 17:38	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		5.0	0.72	ng/L		10/27/20 09:15	10/27/20 17:38	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		2.0	0.66	ng/L		10/27/20 09:15	10/27/20 17:38	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	100		50 - 150	10/27/20 09:15	10/27/20 17:38	1
13C4 PFHpA	101		50 - 150	10/27/20 09:15	10/27/20 17:38	1
13C4 PFOA	97		50 - 150	10/27/20 09:15	10/27/20 17:38	1
13C4 PFOS	107		50 - 150	10/27/20 09:15	10/27/20 17:38	1
13C5 PFNA	97		50 - 150	10/27/20 09:15	10/27/20 17:38	1
13C4 PFBA	109		25 - 150	10/27/20 09:15	10/27/20 17:38	1
13C2 PFHxA	105		50 - 150	10/27/20 09:15	10/27/20 17:38	1
13C2 PFDA	92		50 - 150	10/27/20 09:15	10/27/20 17:38	1
13C2 PFUnA	92		50 - 150	10/27/20 09:15	10/27/20 17:38	1
13C2 PFDoA	83		50 - 150	10/27/20 09:15	10/27/20 17:38	1
13C8 FOSA	69		25 - 150	10/27/20 09:15	10/27/20 17:38	1
13C5 PFPeA	111		25 - 150	10/27/20 09:15	10/27/20 17:38	1
13C2 PFTeDA	82		50 - 150	10/27/20 09:15	10/27/20 17:38	1
d3-NMeFOSAA	84		50 - 150	10/27/20 09:15	10/27/20 17:38	1
d5-NEtFOSAA	92		50 - 150	10/27/20 09:15	10/27/20 17:38	1
M2-6:2 FTS	106		25 - 150	10/27/20 09:15	10/27/20 17:38	1
M2-8:2 FTS	110		25 - 150	10/27/20 09:15	10/27/20 17:38	1
13C3 PFBS	102		50 - 150	10/27/20 09:15	10/27/20 17:38	1

Lab Sample ID: LCS 200-160391/2-A

Matrix: Water

Analysis Batch: 160481

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 160391

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	33.0		ng/L		83	50 - 150
Perfluoropentanoic acid (PFPeA)	40.0	32.4		ng/L		81	50 - 150
Perfluorohexanoic acid (PFHxA)	40.0	34.9		ng/L		87	70 - 130
Perfluoroheptanoic acid (PFHpA)	40.0	34.5		ng/L		86	70 - 130
Perfluorooctanoic acid (PFOA)	40.0	34.5		ng/L		86	70 - 130
Perfluorononanoic acid (PFNA)	40.0	36.2		ng/L		91	70 - 130

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

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

Lab Sample ID: LCS 200-160391/2-A

Matrix: Water

Analysis Batch: 160481

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 160391

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorodecanoic acid (PFDA)	40.0	35.1		ng/L		88	70 - 130
Perfluoroundecanoic acid (PFUnA)	40.0	32.6		ng/L		81	70 - 130
Perfluorododecanoic acid (PFDoA)	40.0	37.0		ng/L		93	70 - 130
Perfluorotridecanoic acid (PFTriA)	40.0	35.0		ng/L		87	70 - 130
Perfluorotetradecanoic acid (PFTeA)	40.0	39.6		ng/L		99	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	32.0		ng/L		91	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	36.4	30.4		ng/L		83	70 - 130
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	33.4		ng/L		88	50 - 150
Perfluorooctanesulfonic acid (PFOS)	37.1	30.0		ng/L		81	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	31.1		ng/L		81	50 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	50.6		ng/L		127	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	32.2		ng/L		81	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	34.3		ng/L		86	70 - 130
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	37.9	32.0		ng/L		84	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	38.3	32.3		ng/L		84	50 - 150

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
18O2 PFHxS	104		50 - 150
13C4 PFHpA	101		50 - 150
13C4 PFOA	94		50 - 150
13C4 PFOS	105		50 - 150
13C5 PFNA	90		50 - 150
13C4 PFBA	111		25 - 150
13C2 PFHxA	105		50 - 150
13C2 PFDA	89		50 - 150
13C2 PFUnA	91		50 - 150
13C2 PFDoA	72		50 - 150
13C8 FOSA	47		25 - 150
13C5 PFPeA	114		25 - 150
13C2 PFTeDA	74		50 - 150
d3-NMeFOSAA	84		50 - 150
d5-NEtFOSAA	82		50 - 150
M2-6:2 FTS	98		25 - 150
M2-8:2 FTS	104		25 - 150
13C3 PFBS	102		50 - 150

QC Sample Results

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

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

Lab Sample ID: 480-176996-2 MS

Matrix: Water

Analysis Batch: 160481

Client Sample ID: TPW-33R

Prep Type: Total/NA

Prep Batch: 160391

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	1.8	J	34.8	30.3		ng/L		82	40 - 160
Perfluoropentanoic acid (PFPeA)	ND		34.8	27.5		ng/L		79	40 - 160
Perfluorohexanoic acid (PFHxA)	0.75	J	34.8	31.3		ng/L		88	40 - 160
Perfluoroheptanoic acid (PFHpA)	0.50	J	34.8	31.6		ng/L		89	40 - 160
Perfluorooctanoic acid (PFOA)	1.3	J	34.8	32.3		ng/L		89	40 - 160
Perfluorononanoic acid (PFNA)	ND		34.8	31.3		ng/L		90	40 - 160
Perfluorodecanoic acid (PFDA)	ND		34.8	29.2		ng/L		84	40 - 160
Perfluoroundecanoic acid (PFUnA)	ND		34.8	28.1		ng/L		81	40 - 160
Perfluorododecanoic acid (PFDoA)	ND		34.8	31.9		ng/L		92	40 - 160
Perfluorotridecanoic acid (PFTriA)	ND		34.8	31.2		ng/L		89	40 - 160
Perfluorotetradecanoic acid (PFTeA)	ND		34.8	32.6		ng/L		94	40 - 160
Perfluorobutanesulfonic acid (PFBS)	0.71	J	30.8	28.5		ng/L		90	40 - 160
Perfluorohexanesulfonic acid (PFHxS)	3.8		31.7	29.7		ng/L		82	40 - 160
Perfluoroheptanesulfonic Acid (PFHpS)	ND		33.1	29.4		ng/L		89	40 - 160
Perfluorooctanesulfonic acid (PFOS)	6.0		32.3	31.3		ng/L		78	40 - 160
Perfluorodecanesulfonic acid (PFDS)	ND		33.6	30.3		ng/L		90	40 - 160
Perfluorooctanesulfonamide (PFOSA)	ND		34.8	34.1		ng/L		98	40 - 160
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		34.8	30.8		ng/L		88	40 - 160
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		34.8	29.3		ng/L		84	40 - 160
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		33.0	28.1		ng/L		85	40 - 160
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		33.4	29.5		ng/L		88	40 - 160
Isotope Dilution	MS %Recovery	MS Qualifier	Limits						
18O2 PFHxS	102		50 - 150						
13C4 PFHpA	94		50 - 150						
13C4 PFOA	92		50 - 150						
13C4 PFOS	102		50 - 150						
13C5 PFNA	93		50 - 150						
13C4 PFBA	88		25 - 150						
13C2 PFHxA	121		50 - 150						
13C2 PFDA	87		50 - 150						
13C2 PFUnA	90		50 - 150						
13C2 PFDoA	75		50 - 150						
13C8 FOSA	85		25 - 150						
13C5 PFPeA	103		25 - 150						
13C2 PFTeDA	73		50 - 150						
d3-NMeFOSAA	78		50 - 150						
d5-NEtFOSAA	85		50 - 150						

QC Sample Results

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

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

Lab Sample ID: 480-176996-2 MS

Matrix: Water

Analysis Batch: 160481

Client Sample ID: TPW-33R

Prep Type: Total/NA

Prep Batch: 160391

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
M2-6:2 FTS	101		25 - 150
M2-8:2 FTS	89		25 - 150
13C3 PFBS	101		50 - 150

Lab Sample ID: 480-176996-2 MSD

Matrix: Water

Analysis Batch: 160481

Client Sample ID: TPW-33R

Prep Type: Total/NA

Prep Batch: 160391

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MSD Result</i>	<i>MSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
Perfluorobutanoic acid (PFBA)	1.8	J	35.5	30.4		ng/L		81	40 - 160	0	30
Perfluoropentanoic acid (PFPeA)	ND		35.5	29.4		ng/L		83	40 - 160	7	30
Perfluorohexanoic acid (PFHxA)	0.75	J	35.5	31.1		ng/L		85	40 - 160	1	20
Perfluoroheptanoic acid (PFHpA)	0.50	J	35.5	32.8		ng/L		91	40 - 160	4	20
Perfluorooctanoic acid (PFOA)	1.3	J	35.5	32.6		ng/L		88	40 - 160	1	20
Perfluorononanoic acid (PFNA)	ND		35.5	29.6		ng/L		83	40 - 160	6	20
Perfluorodecanoic acid (PFDA)	ND		35.5	30.3		ng/L		85	40 - 160	3	20
Perfluoroundecanoic acid (PFUnA)	ND		35.5	29.4		ng/L		83	40 - 160	4	20
Perfluorododecanoic acid (PFDoA)	ND		35.5	33.0		ng/L		93	40 - 160	4	20
Perfluorotridecanoic acid (PFTriA)	ND		35.5	32.2		ng/L		91	40 - 160	3	20
Perfluorotetradecanoic acid (PFTeA)	ND		35.5	35.2		ng/L		99	40 - 160	8	20
Perfluorobutanesulfonic acid (PFBS)	0.71	J	31.4	27.8		ng/L		86	40 - 160	2	20
Perfluorohexanesulfonic acid (PFHxS)	3.8		32.3	29.5		ng/L		80	40 - 160	0	20
Perfluoroheptanesulfonic Acid (PFHpS)	ND		33.8	31.8		ng/L		94	40 - 160	8	30
Perfluorooctanesulfonic acid (PFOS)	6.0		33.0	34.8		ng/L		87	40 - 160	10	20
Perfluorodecanesulfonic acid (PFDS)	ND		34.2	28.4		ng/L		83	40 - 160	6	30
Perfluorooctanesulfonamide (PFOSA)	ND		35.5	32.0		ng/L		90	40 - 160	6	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		35.5	30.2		ng/L		85	40 - 160	2	20
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		35.5	28.9		ng/L		81	40 - 160	1	20
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		33.7	28.4		ng/L		84	40 - 160	1	30
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		34.0	29.2		ng/L		86	40 - 160	1	30

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MSD MSD Qualifier</i>	<i>Limits</i>
18O2 PFHxS	96		50 - 150
13C4 PFHpA	95		50 - 150
13C4 PFOA	94		50 - 150
13C4 PFOS	89		50 - 150
13C5 PFNA	97		50 - 150
13C4 PFBA	79		25 - 150

QC Sample Results

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

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

Lab Sample ID: 480-176996-2 MSD

Matrix: Water

Analysis Batch: 160481

Client Sample ID: TPW-33R

Prep Type: Total/NA

Prep Batch: 160391

Isotope Dilution	MSD		Limits
	%Recovery	Qualifier	
13C2 PFHxA	96		50 - 150
13C2 PFDA	85		50 - 150
13C2 PFUnA	82		50 - 150
13C2 PFDoA	64		50 - 150
13C8 FOSA	84		25 - 150
13C5 PFPeA	92		25 - 150
13C2 PFTeDA	61		50 - 150
d3-NMeFOSAA	71		50 - 150
d5-NEtFOSAA	74		50 - 150
M2-6:2 FTS	115		25 - 150
M2-8:2 FTS	109		25 - 150
13C3 PFBS	90		50 - 150

Definitions/Glossary

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

Qualifiers

LCMS

Qualifier	Qualifier Description
*5	Isotope dilution analyte is outside acceptance limits.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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: Verona Research Facility #633046

Job ID: 480-176996-1

GC/MS Semi VOA

Prep Batch: 555696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-176996-1	EQUIP BLANK	Total/NA	Water	3510C	
480-176996-2	TPW-33R	Total/NA	Water	3510C	
480-176996-3	B1231-MW-03	Total/NA	Water	3510C	
480-176996-4	B1243-W05	Total/NA	Water	3510C	
480-176996-5	MW-1253 IR	Total/NA	Water	3510C	
480-176996-6	B1219-W06	Total/NA	Water	3510C	
480-176996-7	B-54 B1266-W12	Total/NA	Water	3510C	
480-176996-8	TPW-14	Total/NA	Water	3510C	
480-176996-9	DUPLICATE	Total/NA	Water	3510C	
MB 480-555696/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-555696/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-176996-2 MS	TPW-33R	Total/NA	Water	3510C	
480-176996-2 MSD	TPW-33R	Total/NA	Water	3510C	

Analysis Batch: 556213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-176996-1	EQUIP BLANK	Total/NA	Water	8270D SIM ID	555696
480-176996-3	B1231-MW-03	Total/NA	Water	8270D SIM ID	555696
480-176996-4	B1243-W05	Total/NA	Water	8270D SIM ID	555696
480-176996-5	MW-1253 IR	Total/NA	Water	8270D SIM ID	555696
480-176996-6	B1219-W06	Total/NA	Water	8270D SIM ID	555696
MB 480-555696/1-A	Method Blank	Total/NA	Water	8270D SIM ID	555696
LCS 480-555696/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	555696

Analysis Batch: 556258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-176996-7	B-54 B1266-W12	Total/NA	Water	8270D SIM ID	555696
480-176996-8	TPW-14	Total/NA	Water	8270D SIM ID	555696
480-176996-9	DUPLICATE	Total/NA	Water	8270D SIM ID	555696

Analysis Batch: 556636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-176996-2	TPW-33R	Total/NA	Water	8270D SIM ID	555696
480-176996-2 MS	TPW-33R	Total/NA	Water	8270D SIM ID	555696
480-176996-2 MSD	TPW-33R	Total/NA	Water	8270D SIM ID	555696

LCMS

Prep Batch: 160391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-176996-1	EQUIP BLANK	Total/NA	Water	3535	
480-176996-2	TPW-33R	Total/NA	Water	3535	
480-176996-3	B1231-MW-03	Total/NA	Water	3535	
480-176996-4	B1243-W05	Total/NA	Water	3535	
480-176996-5	MW-1253 IR	Total/NA	Water	3535	
480-176996-6	B1219-W06	Total/NA	Water	3535	
480-176996-7	B-54 B1266-W12	Total/NA	Water	3535	
480-176996-8	TPW-14	Total/NA	Water	3535	
480-176996-9	DUPLICATE	Total/NA	Water	3535	
MB 200-160391/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-160391/2-A	Lab Control Sample	Total/NA	Water	3535	

QC Association Summary

Client: New York State D.E.C.

Job ID: 480-176996-1

Project/Site: Verona Research Facility #633046

LCMS (Continued)

Prep Batch: 160391 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-176996-2 MS	TPW-33R	Total/NA	Water	3535	
480-176996-2 MSD	TPW-33R	Total/NA	Water	3535	

Analysis Batch: 160481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-176996-1	EQUIP BLANK	Total/NA	Water	537 (modified)	160391
480-176996-2	TPW-33R	Total/NA	Water	537 (modified)	160391
480-176996-3	B1231-MW-03	Total/NA	Water	537 (modified)	160391
480-176996-4	B1243-W05	Total/NA	Water	537 (modified)	160391
480-176996-5	MW-1253 IR	Total/NA	Water	537 (modified)	160391
480-176996-6	B1219-W06	Total/NA	Water	537 (modified)	160391
480-176996-7	B-54 B1266-W12	Total/NA	Water	537 (modified)	160391
480-176996-8	TPW-14	Total/NA	Water	537 (modified)	160391
480-176996-9	DUPLICATE	Total/NA	Water	537 (modified)	160391
MB 200-160391/1-A	Method Blank	Total/NA	Water	537 (modified)	160391
LCS 200-160391/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	160391
480-176996-2 MS	TPW-33R	Total/NA	Water	537 (modified)	160391
480-176996-2 MSD	TPW-33R	Total/NA	Water	537 (modified)	160391

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

Client Sample ID: EQUIP BLANK

Lab Sample ID: 480-176996-1

Date Collected: 10/21/20 07:45

Matrix: Water

Date Received: 10/23/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			555696	10/26/20 08:16	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	556213	10/28/20 22:15	JMM	TAL BUF
Total/NA	Prep	3535			160391	10/27/20 09:15	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	160481	10/27/20 19:17	BWC	TAL BUR

Client Sample ID: TPW-33R

Lab Sample ID: 480-176996-2

Date Collected: 10/21/20 09:00

Matrix: Water

Date Received: 10/23/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			555696	10/26/20 08:16	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	556636	10/30/20 11:52	JMM	TAL BUF
Total/NA	Prep	3535			160391	10/27/20 09:15	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	160481	10/27/20 19:25	BWC	TAL BUR

Client Sample ID: B1231-MW-03

Lab Sample ID: 480-176996-3

Date Collected: 10/21/20 10:20

Matrix: Water

Date Received: 10/23/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			555696	10/26/20 08:16	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	556213	10/28/20 22:39	JMM	TAL BUF
Total/NA	Prep	3535			160391	10/27/20 09:15	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	160481	10/27/20 19:58	BWC	TAL BUR

Client Sample ID: B1243-W05

Lab Sample ID: 480-176996-4

Date Collected: 10/21/20 11:40

Matrix: Water

Date Received: 10/23/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			555696	10/26/20 08:16	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	556213	10/28/20 23:02	JMM	TAL BUF
Total/NA	Prep	3535			160391	10/27/20 09:15	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	160481	10/27/20 20:07	BWC	TAL BUR

Client Sample ID: MW-1253 IR

Lab Sample ID: 480-176996-5

Date Collected: 10/21/20 13:15

Matrix: Water

Date Received: 10/23/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			555696	10/26/20 08:16	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	556213	10/28/20 23:25	JMM	TAL BUF
Total/NA	Prep	3535			160391	10/27/20 09:15	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	160481	10/27/20 20:15	BWC	TAL BUR

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

Client Sample ID: B1219-W06

Lab Sample ID: 480-176996-6

Date Collected: 10/21/20 14:00

Matrix: Water

Date Received: 10/23/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			555696	10/26/20 08:16	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	556213	10/28/20 23:49	JMM	TAL BUF
Total/NA	Prep	3535			160391	10/27/20 09:15	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	160481	10/27/20 20:23	BWC	TAL BUR

Client Sample ID: B-54 B1266-W12

Lab Sample ID: 480-176996-7

Date Collected: 10/21/20 15:10

Matrix: Water

Date Received: 10/23/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			555696	10/26/20 08:16	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	556258	10/29/20 01:32	JMM	TAL BUF
Total/NA	Prep	3535			160391	10/27/20 09:15	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	160481	10/27/20 20:32	BWC	TAL BUR

Client Sample ID: TPW-14

Lab Sample ID: 480-176996-8

Date Collected: 10/21/20 16:55

Matrix: Water

Date Received: 10/23/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			555696	10/26/20 08:16	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	556258	10/29/20 01:56	JMM	TAL BUF
Total/NA	Prep	3535			160391	10/27/20 09:15	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	160481	10/27/20 20:40	BWC	TAL BUR

Client Sample ID: DUPLICATE

Lab Sample ID: 480-176996-9

Date Collected: 10/21/20 00:00

Matrix: Water

Date Received: 10/23/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			555696	10/26/20 08:16	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	556258	10/29/20 02:19	JMM	TAL BUF
Total/NA	Prep	3535			160391	10/27/20 09:15	KFW	TAL BUR
Total/NA	Analysis	537 (modified)		1	160481	10/27/20 20:48	BWC	TAL BUR

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: New York State D.E.C.
Project/Site: Verona Research Facility #633046

Job ID: 480-176996-1

Laboratory: Eurofins TestAmerica, Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-21

Laboratory: Eurofins TestAmerica, Burlington

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10391	04-01-21

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

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Water	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)
537 (modified)	3535	Water	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)
537 (modified)	3535	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	3535	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	3535	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Water	Perfluorobutanoic acid (PFBA)
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDaA)
537 (modified)	3535	Water	Perfluoroheptanesulfonic Acid (PFHpS)
537 (modified)	3535	Water	Perfluoroheptanoic acid (PFHpA)
537 (modified)	3535	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Water	Perfluorohexanoic acid (PFHxA)
537 (modified)	3535	Water	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Water	Perfluorooctanesulfonamide (PFOSA)
537 (modified)	3535	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Water	Perfluoropentanoic acid (PFPeA)
537 (modified)	3535	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Water	Perfluorotridecanoic acid (PFTriA)
537 (modified)	3535	Water	Perfluoroundecanoic acid (PFUnA)

Method 8270D

SIM-ID

Semivolatile Organic Compounds
(GC/MS SIM / Isotope Dilution) by
Method 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo

Job No.: 480-176996-1

SDG No.: _____

Matrix: Water

Level: Low

GC Column (1): RXI-5Sil MS ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	DXE #
EQUIP BLANK	480-176996-1	31
TPW-33R	480-176996-2	30
B1231-MW-03	480-176996-3	33
B1243-W05	480-176996-4	33
MW-1253 IR	480-176996-5	31
B1219-W06	480-176996-6	33
B-54 B1266-W12	480-176996-7	30
TPW-14	480-176996-8	32
DUPLICATE	480-176996-9	32
	MB 480-555696/1-A	32
	LCS 480-555696/2-A	34
TPW-33R MS	480-176996-2 MS	31
TPW-33R MSD	480-176996-2 MSD	30

DXE = 1,4-Dioxane-d8

QC LIMITS
15-110

Column to be used to flag recovery values

FORM II 8270D SIM ID

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1

SDG No.: _____

Matrix: Water Level: Low Lab File ID: U33159030.D

Lab ID: LCS 480-555696/2-A Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	1.00	1.15	115	40-140	
1,4-Dioxane-d8	10.0	3.45	34	15-110	

Column to be used to flag recovery and RPD values

FORM III 8270D SIM ID

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
SDG No.: _____
Matrix: Water Level: Low Lab File ID: U33159089.D
Lab ID: 480-176996-2 MS Client ID: TPW-33R MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,4-Dioxane	0.952	ND	1.08	113	40-140	
1,4-Dioxane-d8	9.52	2.9	2.93	31	15-110	

Column to be used to flag recovery and RPD values
FORM III 8270D SIM ID

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
SDG No.: _____
Matrix: Water Level: Low Lab File ID: U33159090.D
Lab ID: 480-176996-2 MSD Client ID: TPW-33R MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,4-Dioxane	0.952	1.08	113	0	20	40-140	
1,4-Dioxane-d8	9.52	2.87	30			15-110	

Column to be used to flag recovery and RPD values

FORM III 8270D SIM ID

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
 SDG No.: _____
 Lab File ID: U33159029.D Lab Sample ID: MB 480-555696/1-A
 Matrix: Water Date Extracted: 10/26/2020 08:16
 Instrument ID: HP5973U Date Analyzed: 10/28/2020 20:18
 Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 480-555696/2-A	U33159030.D	10/28/2020 20:41
EQUIP BLANK	480-176996-1	U33159034.D	10/28/2020 22:15
B1231-MW-03	480-176996-3	U33159035.D	10/28/2020 22:39
B1243-W05	480-176996-4	U33159036.D	10/28/2020 23:02
MW-1253 IR	480-176996-5	U33159037.D	10/28/2020 23:25
B1219-W06	480-176996-6	U33159038.D	10/28/2020 23:49
B-54 B1266-W12	480-176996-7	U33159042.D	10/29/2020 01:32
TPW-14	480-176996-8	U33159043.D	10/29/2020 01:56
DUPLICATE	480-176996-9	U33159044.D	10/29/2020 02:19
TPW-33R MS	480-176996-2 MS	U33159089.D	10/30/2020 11:05
TPW-33R MSD	480-176996-2 MSD	U33159090.D	10/30/2020 11:29
TPW-33R	480-176996-2	U33159091.D	10/30/2020 11:52

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
SDG No.: _____
Lab File ID: U33158827.D DFTPP Injection Date: 10/22/2020
Instrument ID: HP5973U DFTPP Injection Time: 18:48
Analysis Batch No.: 555321

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10-80% of Base Peak	43.7
68	Less than 2% of mass 69	0.0 (0.0) 1
69	Mass 69 Relative abundance	40.1
70	Less than 2% of mass 69	0.2 (0.5) 1
127	10-80% of Base Peak	48.1
197	Less than 2% of mass 198	0.0
198	Base peak	100.0
199	5-9% of mass 198	7.0
275	10-60% of Base Peak	25.7
365	Greater than 1% of mass 198	3.3
441	present but less than 24% of mass 442	9.3 (14.6) 2
442	Greater than 50% of mass 198	63.7
443	15-24% of mass 442	12.6 (19.8) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 480-555321/3	U33158828.D	10/22/2020	19:16
	IC 480-555321/4	U33158829.D	10/22/2020	19:39
	ICIS 480-555321/5	U33158830.D	10/22/2020	20:03
	IC 480-555321/6	U33158831.D	10/22/2020	20:26
	IC 480-555321/7	U33158832.D	10/22/2020	20:50
	IC 480-555321/8	U33158833.D	10/22/2020	21:13
	ICV 480-555321/9	U33158834.D	10/22/2020	21:36

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
SDG No.: _____
Lab File ID: U33159010.D DFTPP Injection Date: 10/28/2020
Instrument ID: HP5973U DFTPP Injection Time: 12:42
Analysis Batch No.: 556213

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10-80% of Base Peak	46.1
68	Less than 2% of mass 69	0.0 (0.0) 1
69	Mass 69 Relative abundance	41.2
70	Less than 2% of mass 69	0.1 (0.3) 1
127	10-80% of Base Peak	49.0
197	Less than 2% of mass 198	0.0
198	Base peak	100.0
199	5-9% of mass 198	7.0
275	10-60% of Base Peak	23.9
365	Greater than 1% of mass 198	2.7
441	present but less than 24% of mass 442	8.6 (15.2) 2
442	Greater than 50% of mass 198	56.5
443	15-24% of mass 442	11.0 (19.4) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-556213/3	U33159011.D	10/28/2020	13:11
	MB 480-555696/1-A	U33159029.D	10/28/2020	20:18
	LCS 480-555696/2-A	U33159030.D	10/28/2020	20:41
EQUIP BLANK	480-176996-1	U33159034.D	10/28/2020	22:15
B1231-MW-03	480-176996-3	U33159035.D	10/28/2020	22:39
B1243-W05	480-176996-4	U33159036.D	10/28/2020	23:02
MW-1253 IR	480-176996-5	U33159037.D	10/28/2020	23:25
B1219-W06	480-176996-6	U33159038.D	10/28/2020	23:49

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
SDG No.: _____
Lab File ID: U33159040.D DFTPP Injection Date: 10/29/2020
Instrument ID: HP5973U DFTPP Injection Time: 00:41
Analysis Batch No.: 556258

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10-80% of Base Peak	44.8
68	Less than 2% of mass 69	0.0 (0.0) 1
69	Mass 69 Relative abundance	40.7
70	Less than 2% of mass 69	0.2 (0.5) 1
127	10-80% of Base Peak	47.7
197	Less than 2% of mass 198	0.0
198	Base peak	100.0
199	5-9% of mass 198	7.0
275	10-60% of Base Peak	24.6
365	Greater than 1% of mass 198	2.8
441	present but less than 24% of mass 442	8.8 (15.6) 2
442	Greater than 50% of mass 198	56.2
443	15-24% of mass 442	11.2 (19.9) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-556258/3	U33159041.D	10/29/2020	1:09
B-54 B1266-W12	480-176996-7	U33159042.D	10/29/2020	1:32
TPW-14	480-176996-8	U33159043.D	10/29/2020	1:56
DUPLICATE	480-176996-9	U33159044.D	10/29/2020	2:19

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
SDG No.: _____
Lab File ID: U33159087.D DFTPP Injection Date: 10/30/2020
Instrument ID: HP5973U DFTPP Injection Time: 10:14
Analysis Batch No.: 556636

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10-80% of Base Peak	36.9
68	Less than 2% of mass 69	0.1 (0.2) 1
69	Mass 69 Relative abundance	34.9
70	Less than 2% of mass 69	0.2 (0.5) 1
127	10-80% of Base Peak	43.3
197	Less than 2% of mass 198	0.0
198	Base peak	100.0
199	5-9% of mass 198	6.5
275	10-60% of Base Peak	26.6
365	Greater than 1% of mass 198	3.2
441	present but less than 24% of mass 442	12.4 (15.1) 2
442	Greater than 50% of mass 198	82.1
443	15-24% of mass 442	15.7 (19.1) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-556636/3	U33159088.D	10/30/2020	10:42
TPW-33R MS	480-176996-2 MS	U33159089.D	10/30/2020	11:05
TPW-33R MSD	480-176996-2 MSD	U33159090.D	10/30/2020	11:29
TPW-33R	480-176996-2	U33159091.D	10/30/2020	11:52

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
 SDG No.: _____
 Sample No.: ICIS 480-555321/5 Date Analyzed: 10/22/2020 20:03
 Instrument ID: HP5973U GC Column: RXI-5Sil MS(0.5 ID: 0.25 (mm)
 Lab File ID (Standard): U33158830.D Heated Purge: (Y/N) N
 Calibration ID: 40483

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MID-POINT		676810	6.13				
UPPER LIMIT		1353620	6.63				
LOWER LIMIT		338405	5.63				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 480-555321/9		762603	6.13				
CCVIS 480-556213/3		553451	6.13				
CCVIS 480-556258/3		598316	6.13				
CCVIS 480-556636/3		566946	6.10				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
 RT Limit = $\pm$ 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM ID

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
 SDG No.: _____
 Sample No.: CCVIS 480-556213/3 Date Analyzed: 10/28/2020 13:11
 Instrument ID: HP5973U GC Column: RXI-5Sil MS(0.5 ID: 0.25 (mm)
 Lab File ID (Standard): U33159011.D Heated Purge: (Y/N) N
 Calibration ID: 40483

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		553451	6.13				
UPPER LIMIT		1106902	6.63				
LOWER LIMIT		276726	5.63				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 480-555696/1-A		518737	6.13				
LCS 480-555696/2-A		503164	6.13				
480-176996-1	EQUIP BLANK	487341	6.13				
480-176996-3	B1231-MW-03	487369	6.13				
480-176996-4	B1243-W05	515188	6.13				
480-176996-5	MW-1253 IR	489516	6.13				
480-176996-6	B1219-W06	498158	6.13				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
 RT Limit = $\pm$ 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM ID

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
 SDG No.: _____
 Sample No.: CCVIS 480-556258/3 Date Analyzed: 10/29/2020 01:09
 Instrument ID: HP5973U GC Column: RXI-5Sil MS(0.5 ID: 0.25(mm)
 Lab File ID (Standard): U33159041.D Heated Purge: (Y/N) N
 Calibration ID: 40483

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		598316	6.13				
UPPER LIMIT		1196632	6.63				
LOWER LIMIT		299158	5.63				
LAB SAMPLE ID	CLIENT SAMPLE ID						
480-176996-7	B-54 B1266-W12	485232	6.13				
480-176996-8	TPW-14	495806	6.13				
480-176996-9	DUPLICATE	484418	6.13				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
 RT Limit = $\pm$ 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM ID

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
 SDG No.: _____
 Sample No.: CCVIS 480-556636/3 Date Analyzed: 10/30/2020 10:42
 Instrument ID: HP5973U GC Column: RXI-5Sil MS(0.5 ID: 0.25(mm)
 Lab File ID (Standard): U33159088.D Heated Purge: (Y/N) N
 Calibration ID: 40483

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		566946	6.10				
UPPER LIMIT		1133892	6.60				
LOWER LIMIT		283473	5.60				
LAB SAMPLE ID	CLIENT SAMPLE ID						
480-176996-2 MS	TPW-33R MS	519728	6.11				
480-176996-2 MSD	TPW-33R MSD	540538	6.10				
480-176996-2	TPW-33R	530247	6.11				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
 RT Limit = $\pm$ 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
 SDG No.: _____
 Client Sample ID: EQUIP BLANK Lab Sample ID: 480-176996-1
 Matrix: Water Lab File ID: U33159034.D
 Analysis Method: 8270D SIM ID Date Collected: 10/21/2020 07:45
 Extract. Method: 3510C Date Extracted: 10/26/2020 08:16
 Sample wt/vol: 1050 (mL) Date Analyzed: 10/28/2020 22:15
 Con. Extract Vol.: 1 (mL) Dilution Factor: 1
 Injection Volume: 1 (uL) Level: (low/med) Low
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 556213 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.19	0.095

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	31		15-110

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159034.D
 Lims ID: 480-176996-A-1-A
 Client ID: EQUIP BLANK
 Sample Type: Client
 Inject. Date: 28-Oct-2020 22:15:30 ALS Bottle#: 26 Worklist Smp#: 26
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094517-026
 Operator ID: JM Instrument ID: HP5973U
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 29-Oct-2020 15:43:28 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1674

First Level Reviewer: marshallj

Date: 29-Oct-2020 15:39:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	%Rec	Flags
D 1 1,4-Dioxane-d8	96	3.135	3.045	0.090	93	185587	3.13	31.3	
3 1,4-Dioxane	88		3.090				ND		U
* 2 1,4-Dichlorobenzene-d4	152	6.134	6.126	0.008	94	487341	4.00		

QC Flag Legend

Processing Flags

Review Flags

U - Marked Undetected

Reagents:

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159034.D

Injection Date: 28-Oct-2020 22:15:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: 480-176996-A-1-A

Lab Sample ID: 480-176996-1

Worklist Smp#: 26

Client ID: EQUIP BLANK

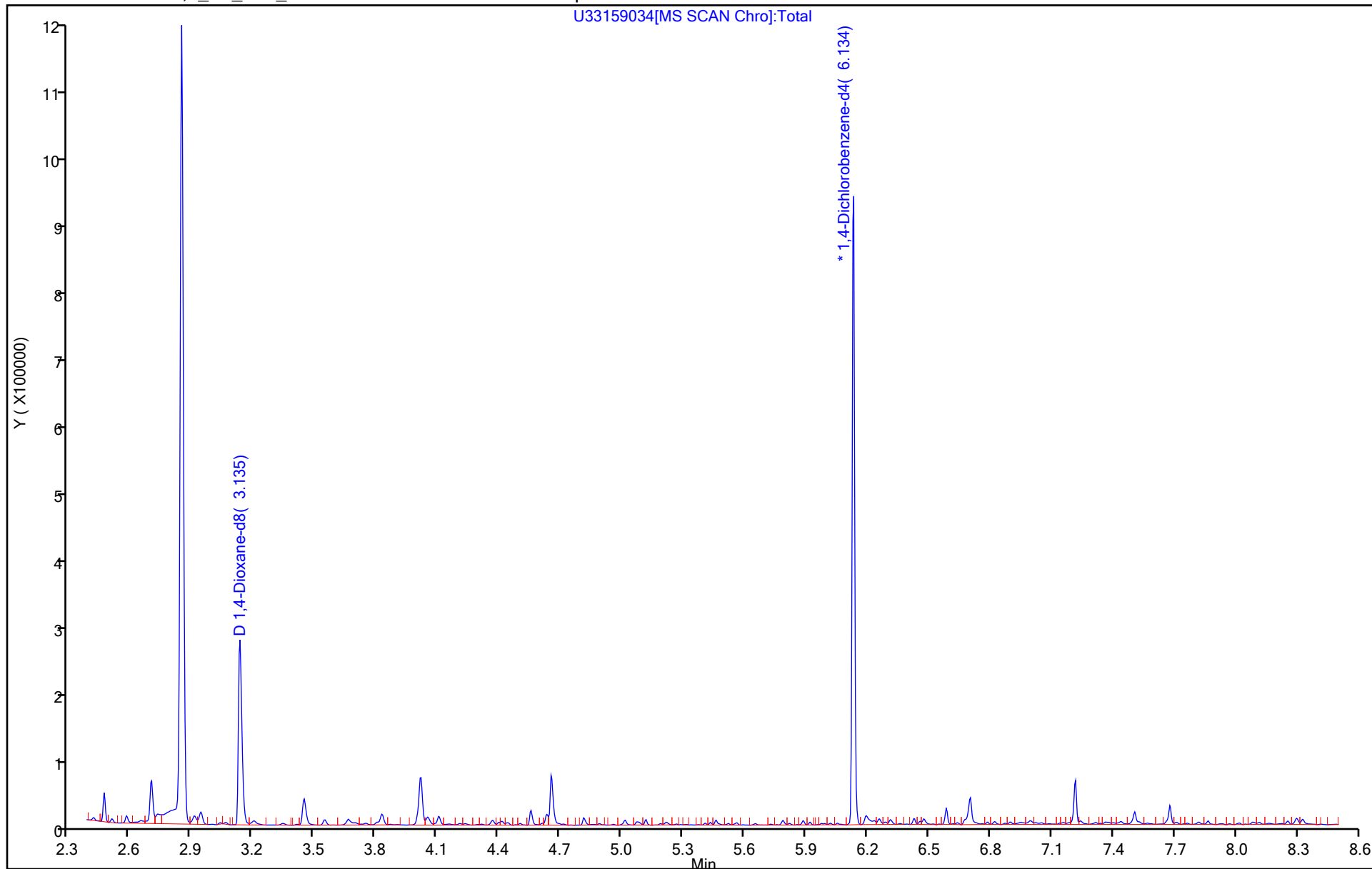
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 26

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159034.D

Injection Date: 28-Oct-2020 22:15:30

Instrument ID: HP5973U

Lims ID: 480-176996-A-1-A

Lab Sample ID: 480-176996-1

Client ID: EQUIP BLANK

Operator ID: JM

ALS Bottle#: 26

Worklist Smp#: 26

Injection Vol: 1.0 ul

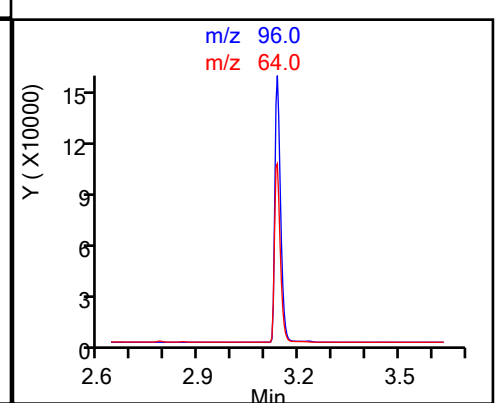
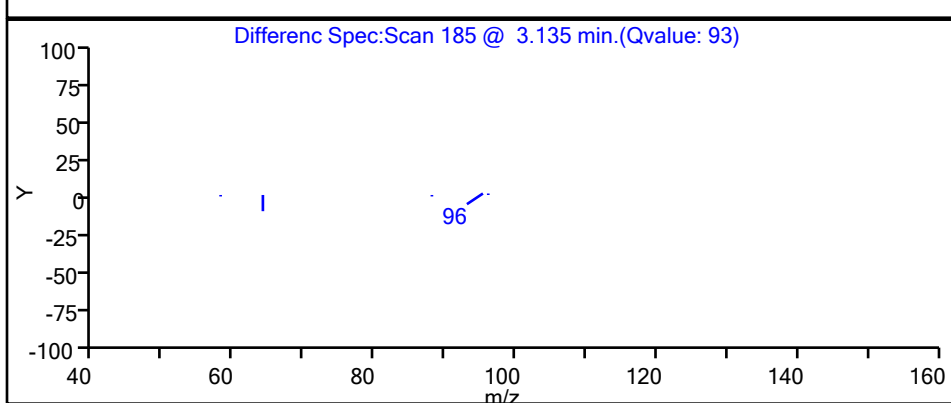
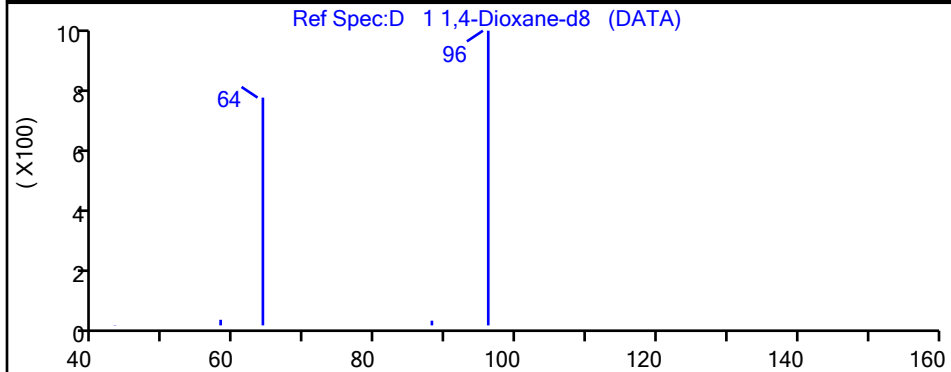
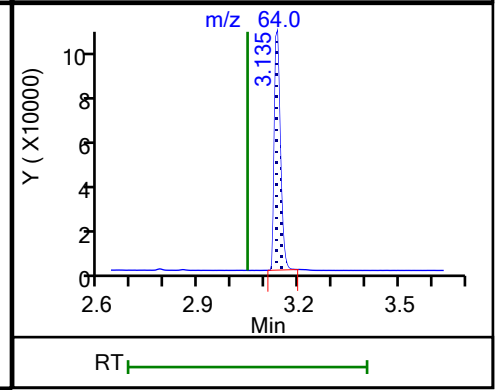
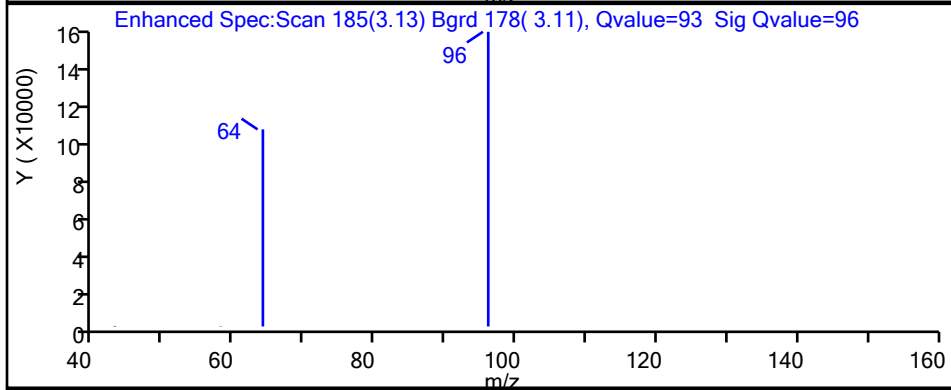
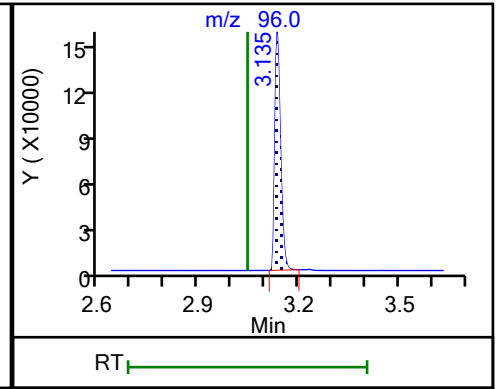
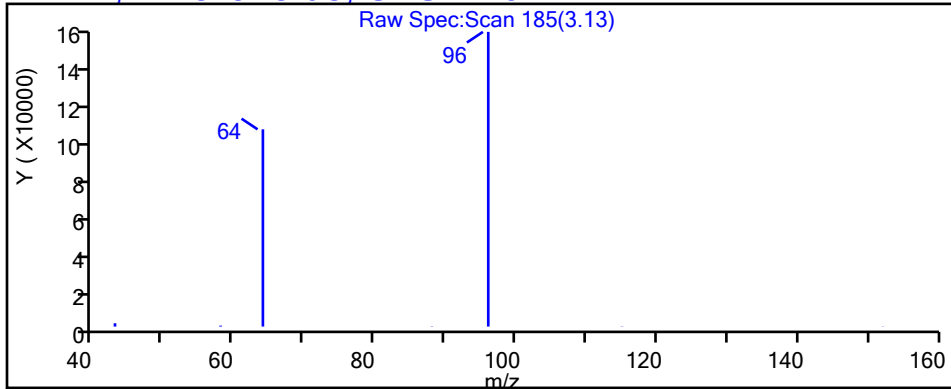
Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

Column:

Detector MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159034.D

Injection Date: 28-Oct-2020 22:15:30

Instrument ID: HP5973U

Lims ID: 480-176996-A-1-A

Lab Sample ID: 480-176996-1

Client ID: EQUIP BLANK

Operator ID: JM

ALS Bottle#:

26

Worklist Smp#: 26

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

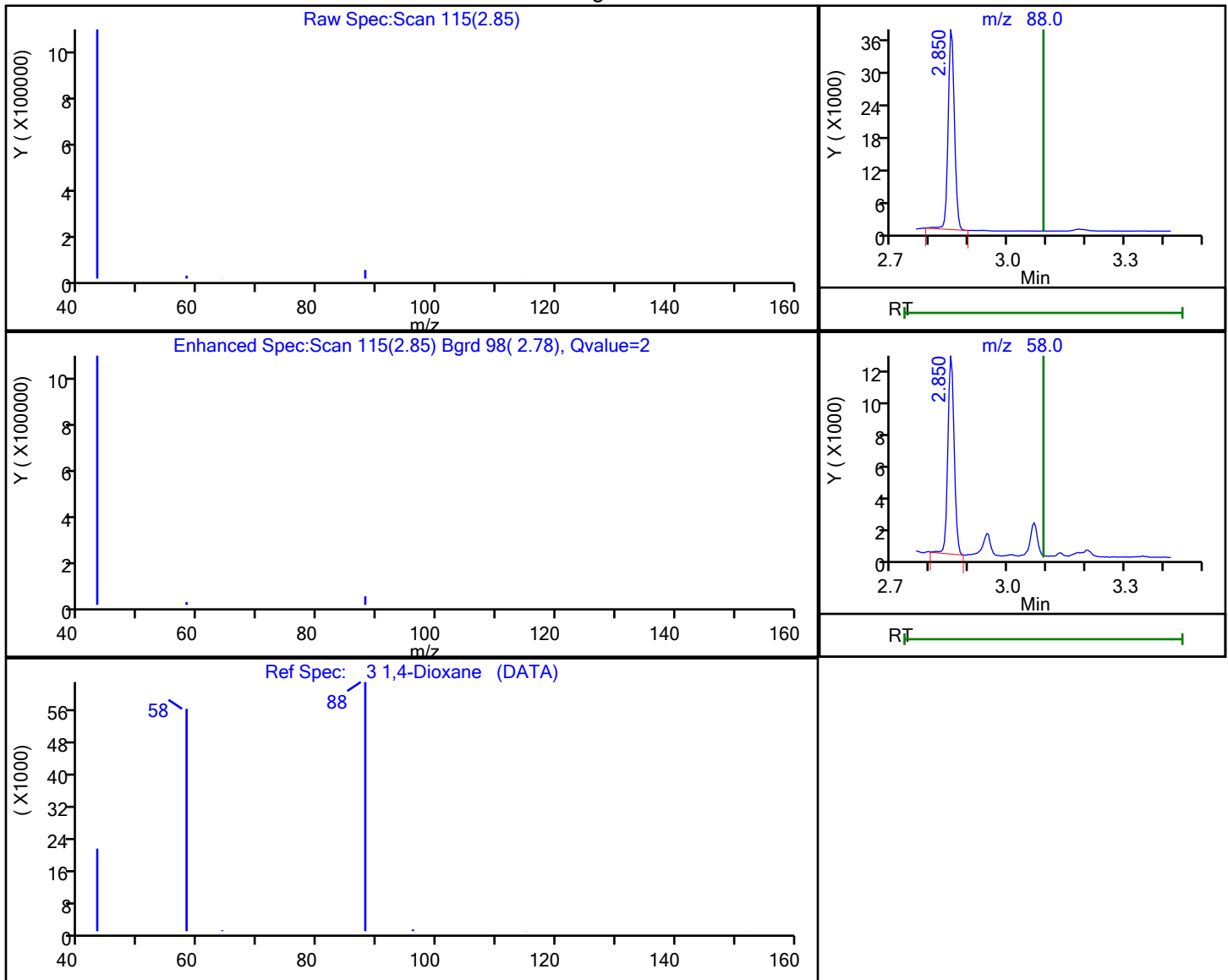
Column:

Detector

MS SCAN

3 1,4-Dioxane, CAS: 123-91-1

Processing Results



RT	Mass	Response	Amount
2.85	88.00	42154	2.158867
2.85	58.00	13668	

Reviewer: marshallj, 29-Oct-2020 15:39:07

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
SDG No.: _____
Client Sample ID: TPW-33R Lab Sample ID: 480-176996-2
Matrix: Water Lab File ID: U33159091.D
Analysis Method: 8270D SIM ID Date Collected: 10/21/2020 09:00
Extract. Method: 3510C Date Extracted: 10/26/2020 08:16
Sample wt/vol: 1040 (mL) Date Analyzed: 10/30/2020 11:52
Con. Extract Vol.: 1 (mL) Dilution Factor: 1
Injection Volume: 1 (uL) Level: (low/med) Low
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 556636 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.19	0.096

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	30		15-110

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201030-94580.b\U33159091.D
 Lims ID: 480-176996-B-2-B
 Client ID: TPW-33R
 Sample Type: Client
 Inject. Date: 30-Oct-2020 11:52:30 ALS Bottle#: 6 Worklist Smp#: 6
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094580-006
 Operator ID: JM Instrument ID: HP5973U
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201030-94580.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 30-Oct-2020 13:03:30 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1635

First Level Reviewer: marshallj

Date: 30-Oct-2020 13:03:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	%Rec	Flags
D 1 1,4-Dioxane-d8	96	3.110	3.013	0.097	91	194842	3.02	30.2	
3 1,4-Dioxane	88		3.058				ND		U
* 2 1,4-Dichlorobenzene-d4	152	6.105	6.101	0.004	96	530247	4.00		

QC Flag Legend

Processing Flags

Review Flags

U - Marked Undetected

Reagents:

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201030-94580.b\U33159091.D

Injection Date: 30-Oct-2020 11:52:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: 480-176996-B-2-B

Lab Sample ID: 480-176996-2

Worklist Smp#: 6

Client ID: TPW-33R

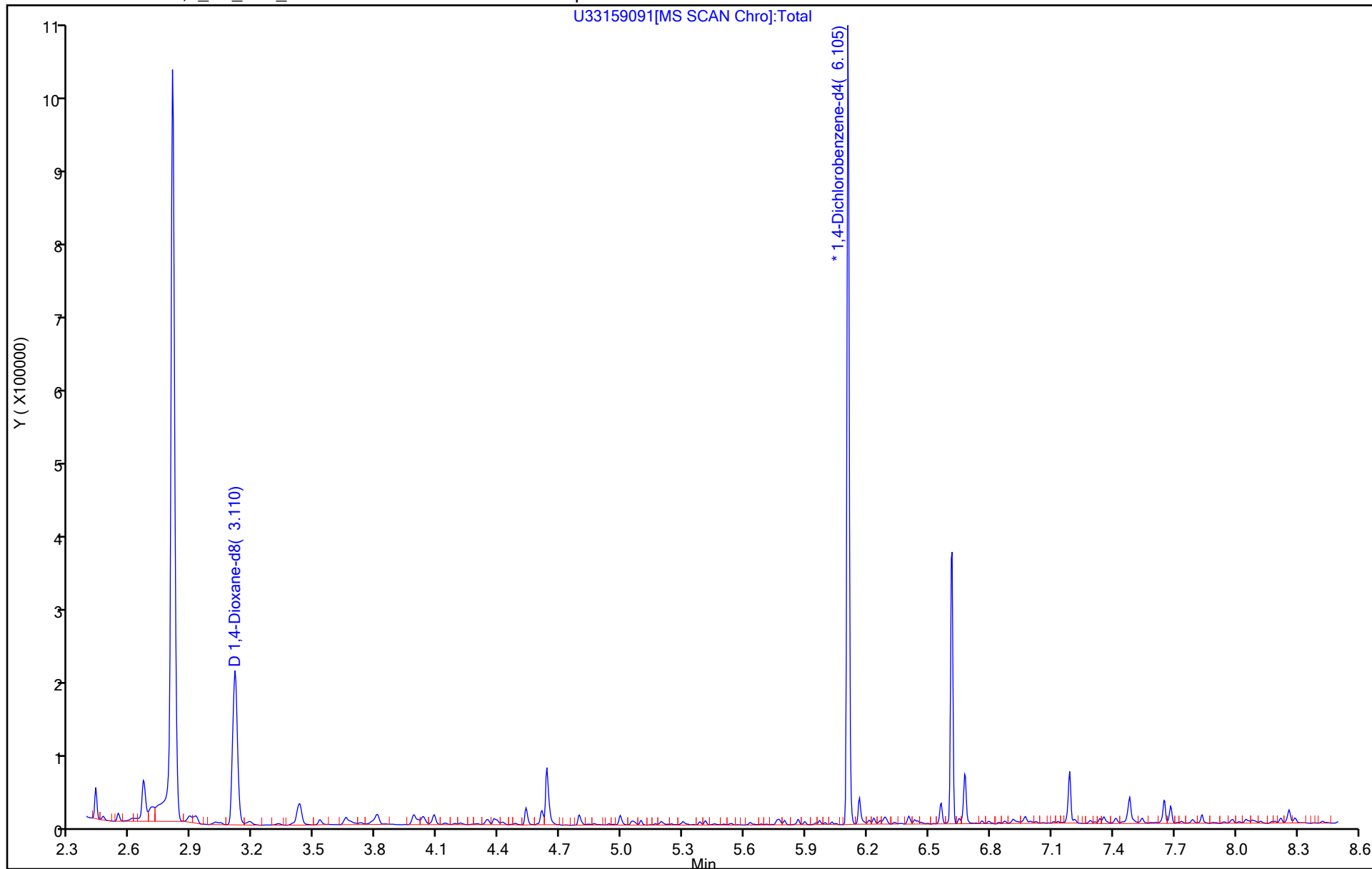
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 6

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201030-94580.b\U33159091.D

Injection Date: 30-Oct-2020 11:52:30

Instrument ID: HP5973U

Lims ID: 480-176996-B-2-B

Lab Sample ID: 480-176996-2

Client ID: TPW-33R

Operator ID: JM

ALS Bottle#: 6

Worklist Smp#: 6

Injection Vol: 1.0 ul

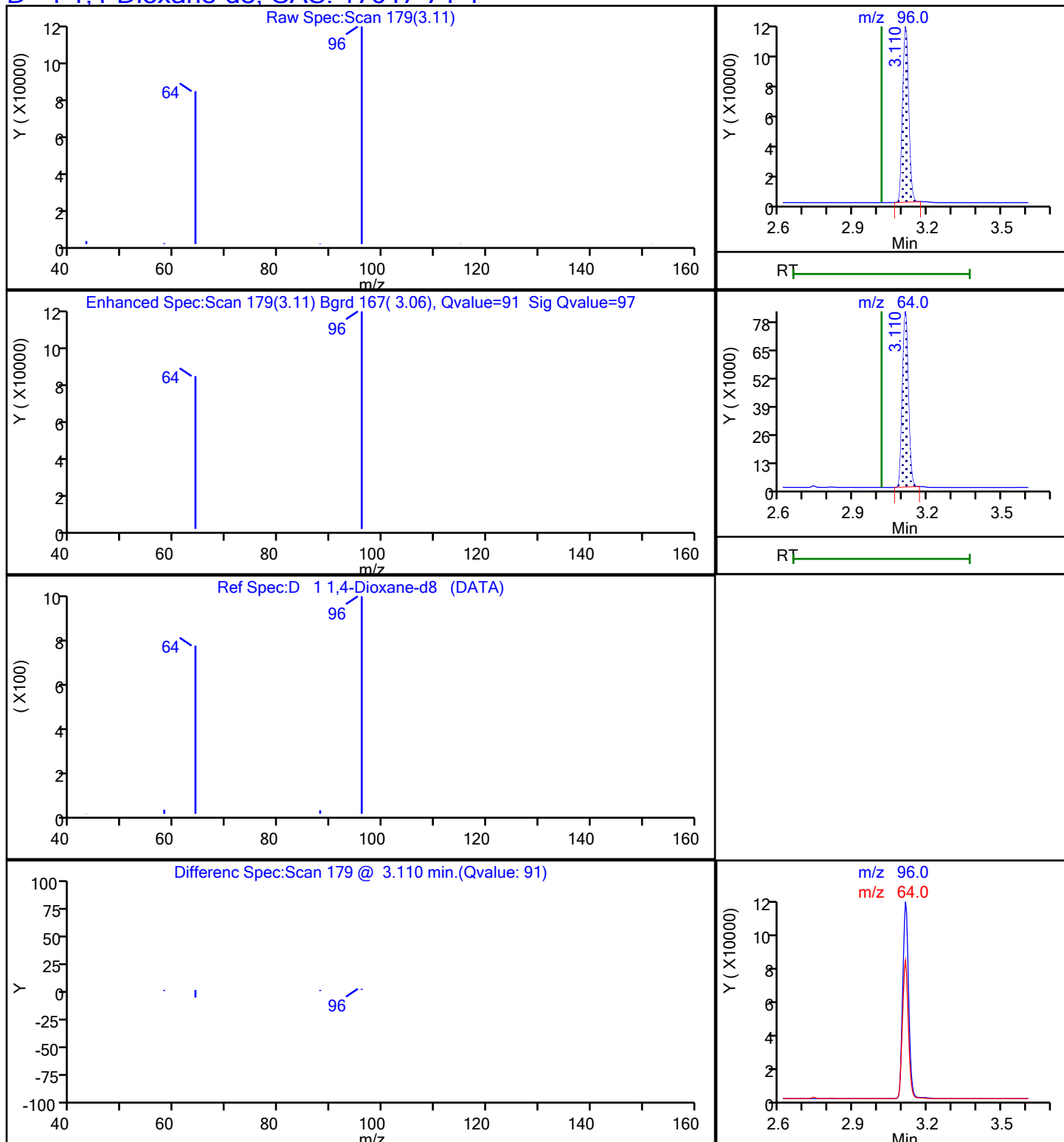
Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

Column:

Detector MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201030-94580.b\U33159091.D

Injection Date: 30-Oct-2020 11:52:30

Instrument ID: HP5973U

Lims ID: 480-176996-B-2-B

Lab Sample ID: 480-176996-2

Client ID: TPW-33R

Operator ID: JM

ALS Bottle#:

6

Worklist Smp#: 6

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

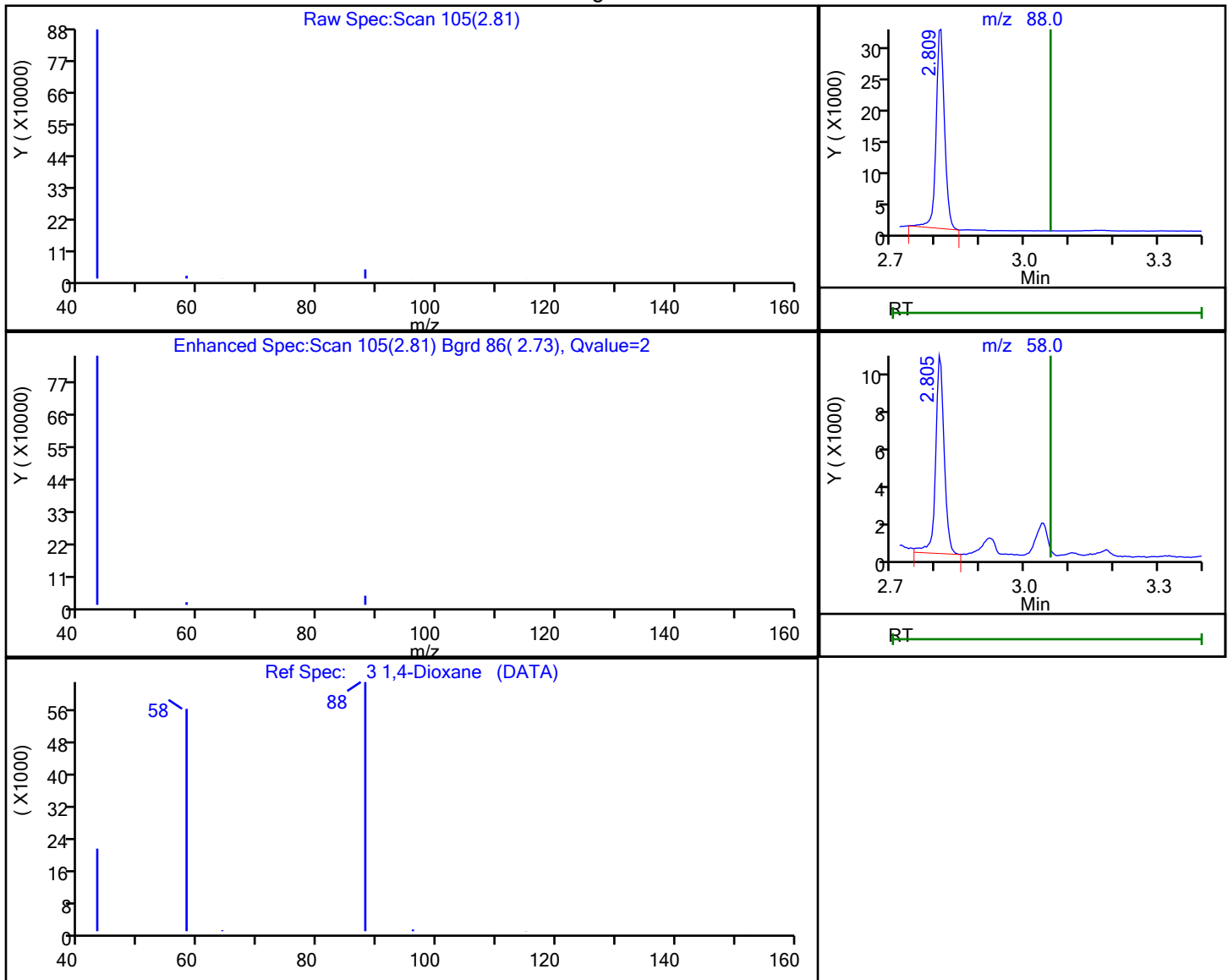
Column:

Detector

MS SCAN

3 1,4-Dioxane, CAS: 123-91-1

Processing Results



RT	Mass	Response	Amount
2.81	88.00	41877	2.042808
2.80	58.00	13293	

Reviewer: marshallj, 30-Oct-2020 13:03:14

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
 SDG No.: _____
 Client Sample ID: B1231-MW-03 Lab Sample ID: 480-176996-3
 Matrix: Water Lab File ID: U33159035.D
 Analysis Method: 8270D SIM ID Date Collected: 10/21/2020 10:20
 Extract. Method: 3510C Date Extracted: 10/26/2020 08:16
 Sample wt/vol: 1050 (mL) Date Analyzed: 10/28/2020 22:39
 Con. Extract Vol.: 1 (mL) Dilution Factor: 1
 Injection Volume: 1 (uL) Level: (low/med) Low
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 556213 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.19	0.095

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	33		15-110

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159035.D
 Lims ID: 480-176996-B-3-A
 Client ID: B1231-MW-03
 Sample Type: Client
 Inject. Date: 28-Oct-2020 22:39:30 ALS Bottle#: 27 Worklist Smp#: 27
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094517-027
 Operator ID: JM Instrument ID: HP5973U
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 29-Oct-2020 15:43:28 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1674

First Level Reviewer: marshallj

Date: 29-Oct-2020 15:39:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	%Rec	Flags
D 1 1,4-Dioxane-d8	96	3.131	3.045	0.086	96	193405	3.26	32.6	
3 1,4-Dioxane	88		3.090				ND		U
* 2 1,4-Dichlorobenzene-d4	152	6.130	6.126	0.004	96	487369	4.00		

QC Flag Legend

Processing Flags

Review Flags

U - Marked Undetected

Reagents:

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159035.D

Injection Date: 28-Oct-2020 22:39:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: 480-176996-B-3-A

Lab Sample ID: 480-176996-3

Worklist Smp#: 27

Client ID: B1231-MW-03

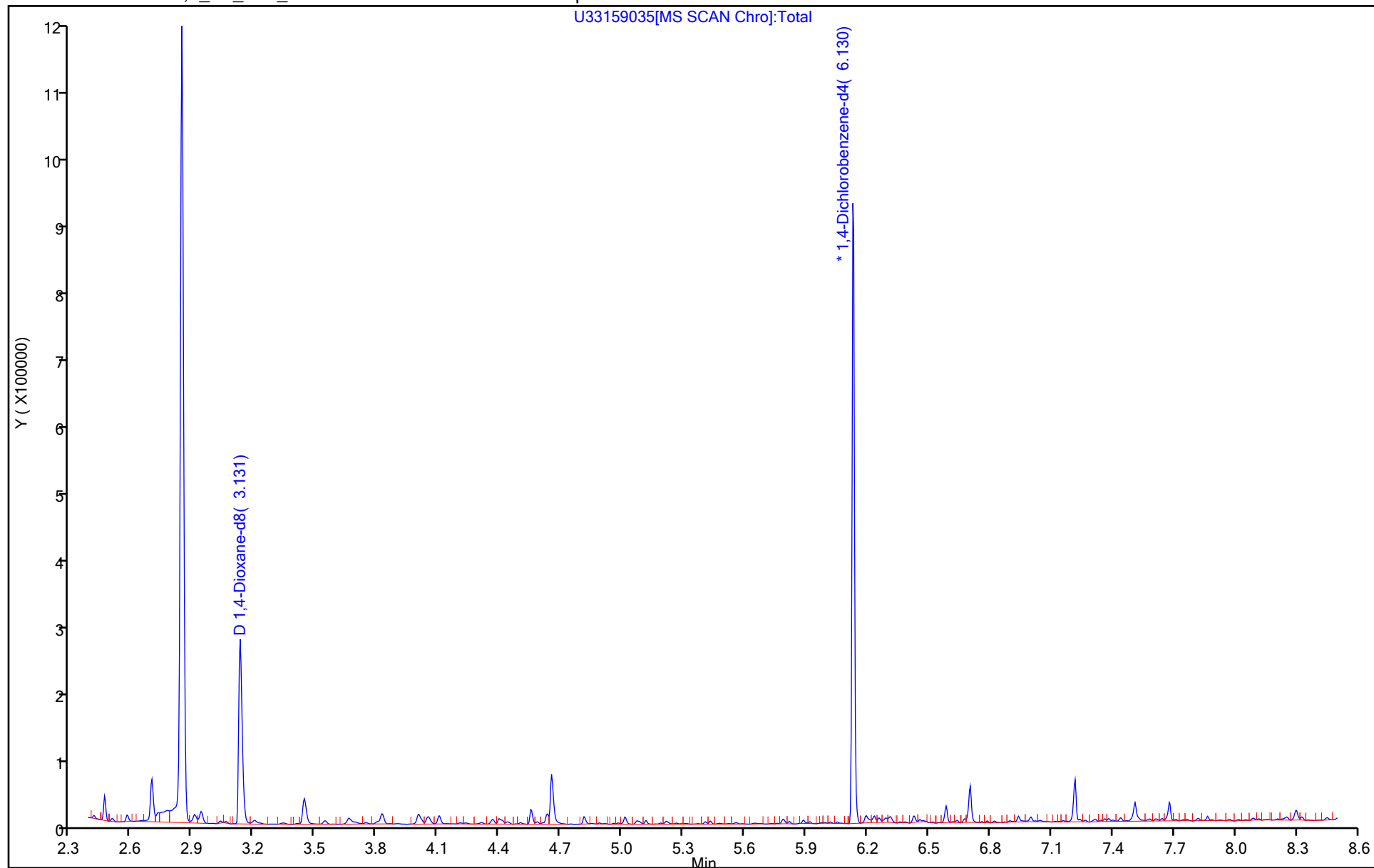
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 27

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159035.D

Injection Date: 28-Oct-2020 22:39:30

Instrument ID: HP5973U

Lims ID: 480-176996-B-3-A

Lab Sample ID: 480-176996-3

Client ID: B1231-MW-03

Operator ID: JM

ALS Bottle#: 27

Worklist Smp#: 27

Injection Vol: 1.0 ul

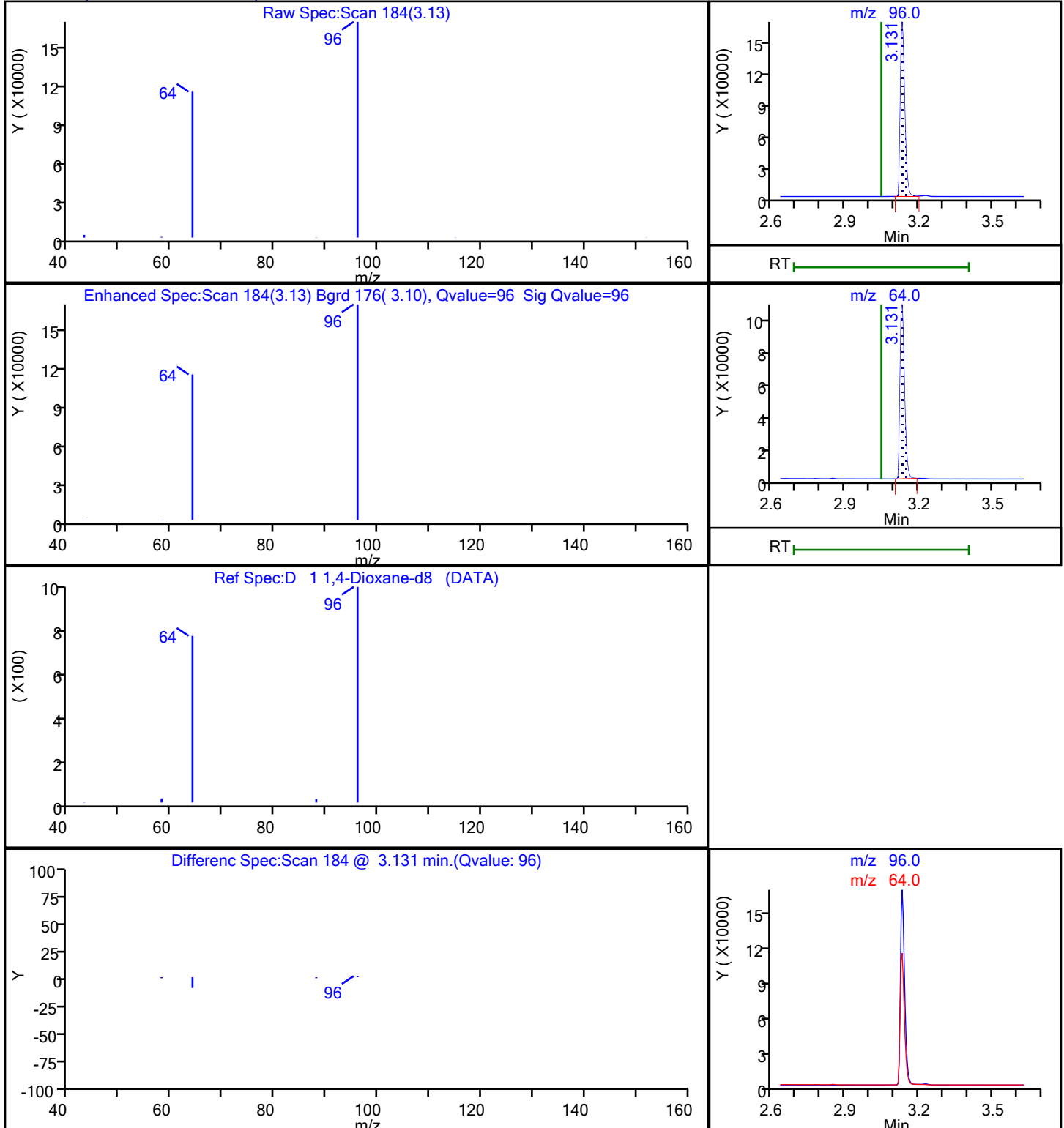
Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

Column:

Detector MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159035.D

Injection Date: 28-Oct-2020 22:39:30

Instrument ID: HP5973U

Lims ID: 480-176996-B-3-A

Lab Sample ID: 480-176996-3

Client ID: B1231-MW-03

Operator ID: JM

ALS Bottle#: 27

Worklist Smp#: 27

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

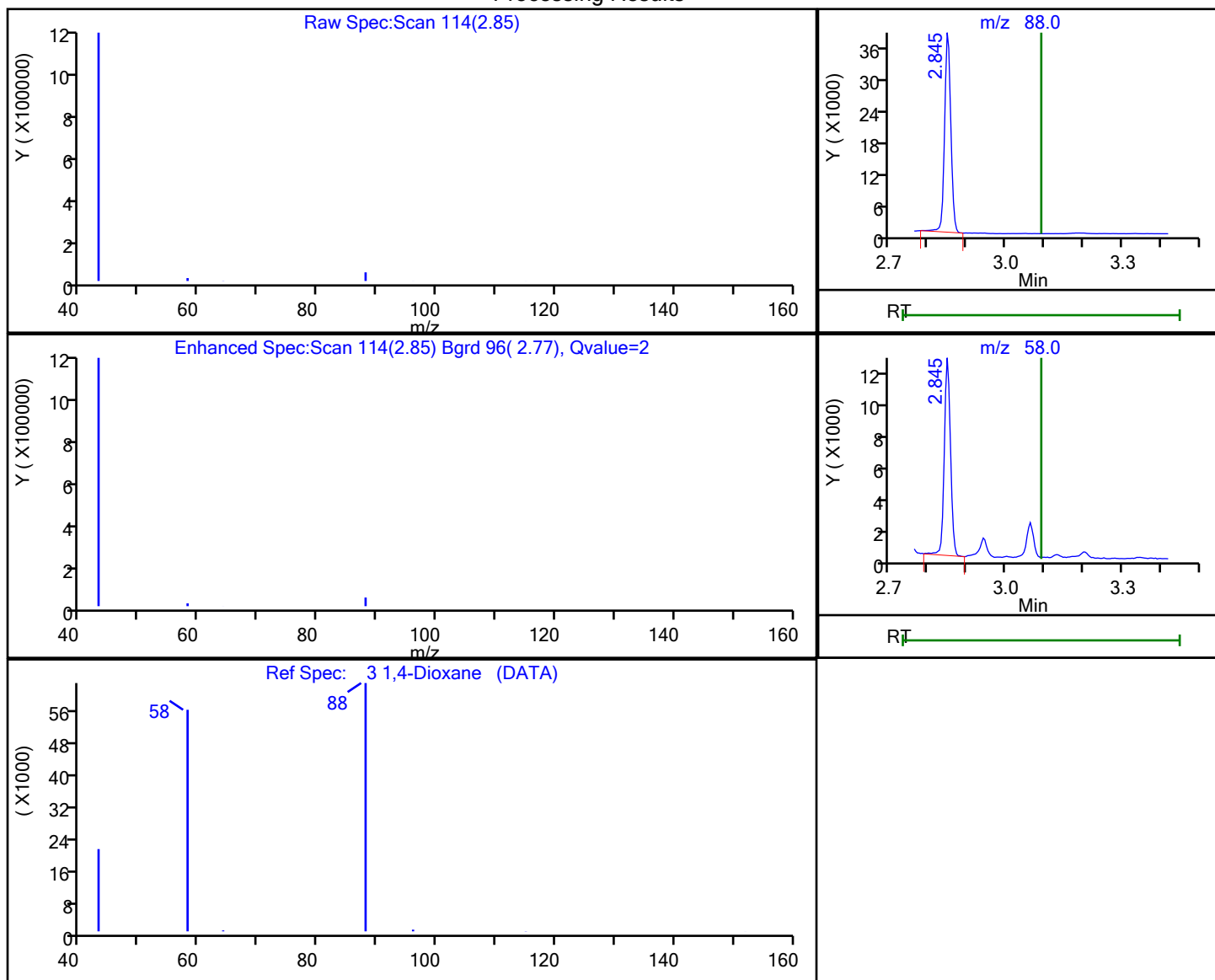
Limit Group: MB - 8270D SIM ID ICAL

Column:

Detector MS SCAN

3 1,4-Dioxane, CAS: 123-91-1

Processing Results



RT	Mass	Response	Amount
2.85	88.00	43219	2.123937
2.85	58.00	14018	

Reviewer: marshallj, 29-Oct-2020 15:39:15

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
SDG No.: _____
Client Sample ID: B1243-W05 Lab Sample ID: 480-176996-4
Matrix: Water Lab File ID: U33159036.D
Analysis Method: 8270D SIM ID Date Collected: 10/21/2020 11:40
Extract. Method: 3510C Date Extracted: 10/26/2020 08:16
Sample wt/vol: 980 (mL) Date Analyzed: 10/28/2020 23:02
Con. Extract Vol.: 1 (mL) Dilution Factor: 1
Injection Volume: 1 (uL) Level: (low/med) Low
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 556213 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.20	0.10

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	33		15-110

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159036.D
 Lims ID: 480-176996-B-4-A
 Client ID: B1243-W05
 Sample Type: Client
 Inject. Date: 28-Oct-2020 23:02:30 ALS Bottle#: 28 Worklist Smp#: 28
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094517-028
 Operator ID: JM Instrument ID: HP5973U
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 29-Oct-2020 15:43:28 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1674

First Level Reviewer: marshallj

Date: 29-Oct-2020 15:39:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	%Rec	Flags
D 1 1,4-Dioxane-d8	96	3.139	3.045	0.094	95	209821	3.35	33.5	
3 1,4-Dioxane	88		3.090				ND		U
* 2 1,4-Dichlorobenzene-d4	152	6.134	6.126	0.008	95	515188	4.00		

QC Flag Legend

Processing Flags

Review Flags

U - Marked Undetected

Reagents:

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159036.D

Injection Date: 28-Oct-2020 23:02:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: 480-176996-B-4-A

Lab Sample ID: 480-176996-4

Worklist Smp#: 28

Client ID: B1243-W05

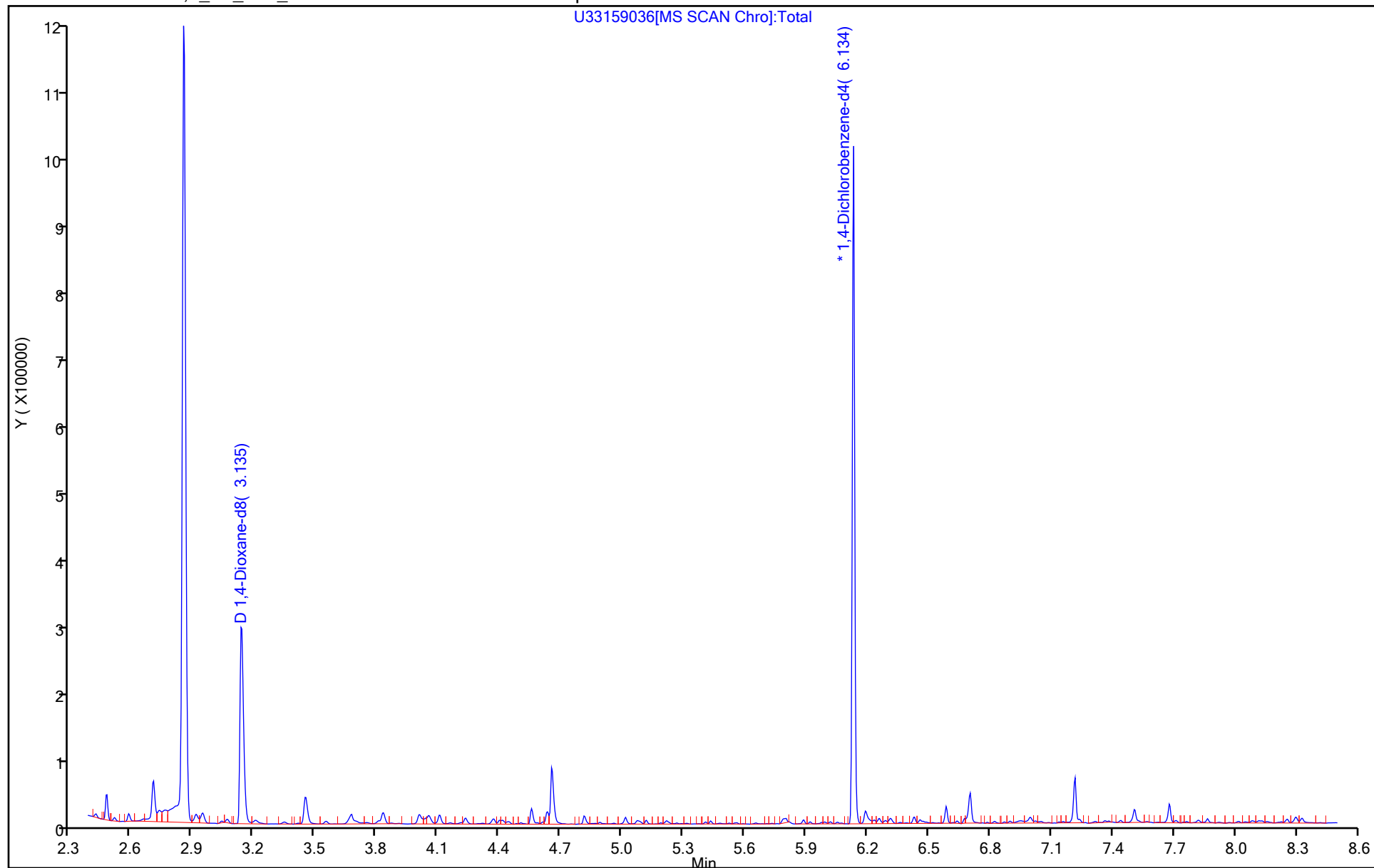
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 28

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159036.D

Injection Date: 28-Oct-2020 23:02:30

Instrument ID: HP5973U

Lims ID: 480-176996-B-4-A

Lab Sample ID: 480-176996-4

Client ID: B1243-W05

Operator ID: JM

ALS Bottle#: 28

Worklist Smp#: 28

Injection Vol: 1.0 ul

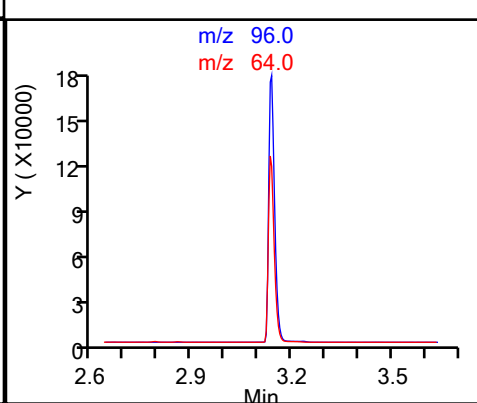
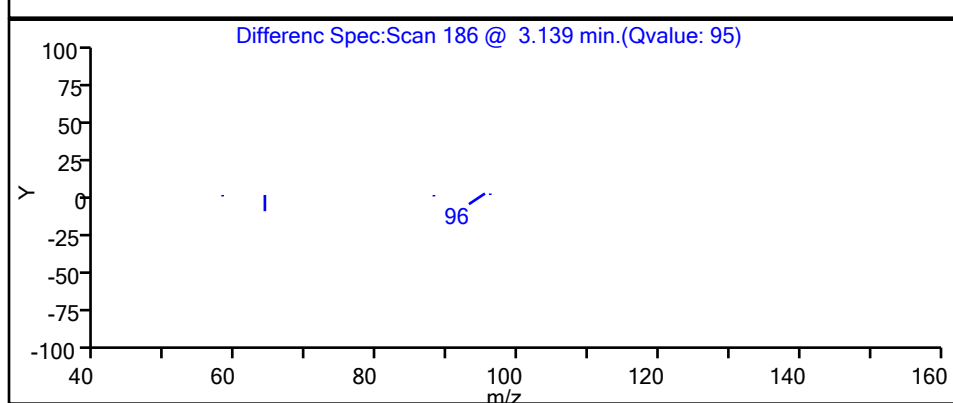
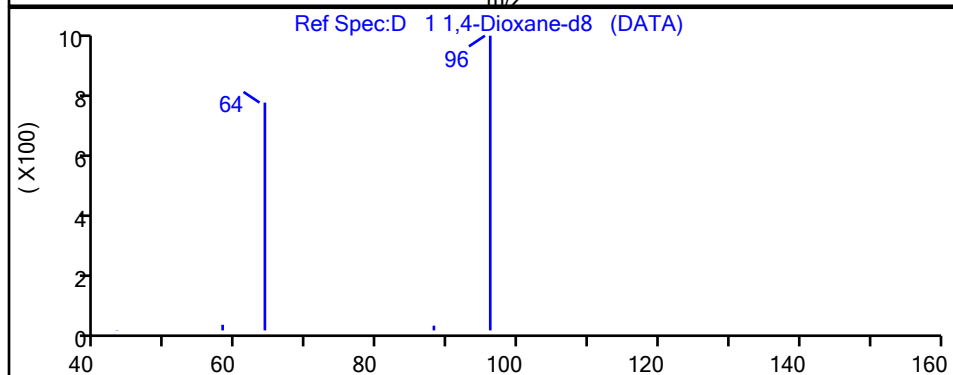
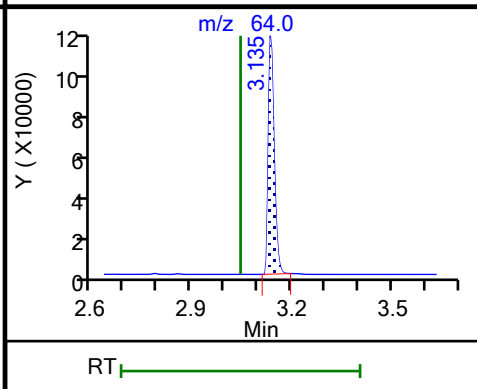
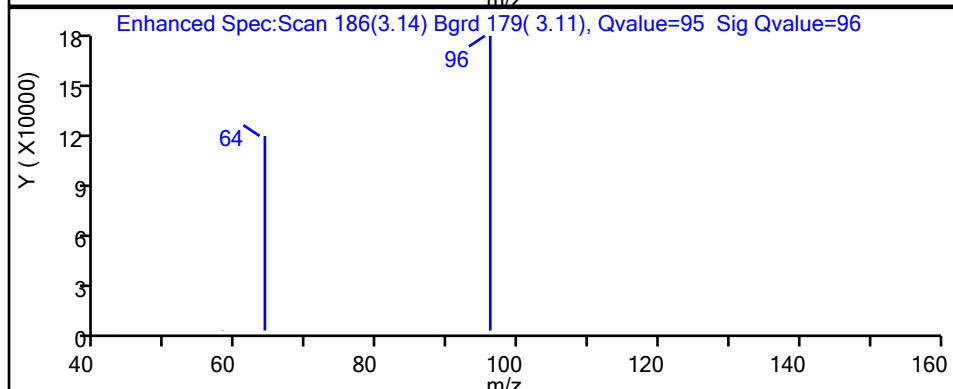
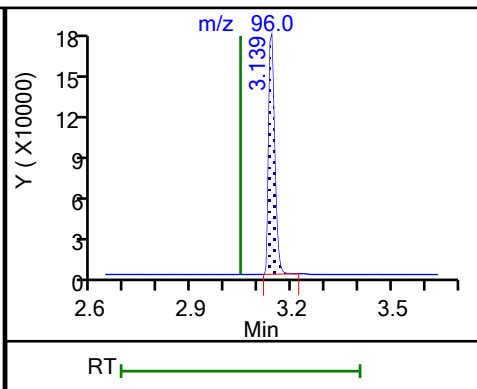
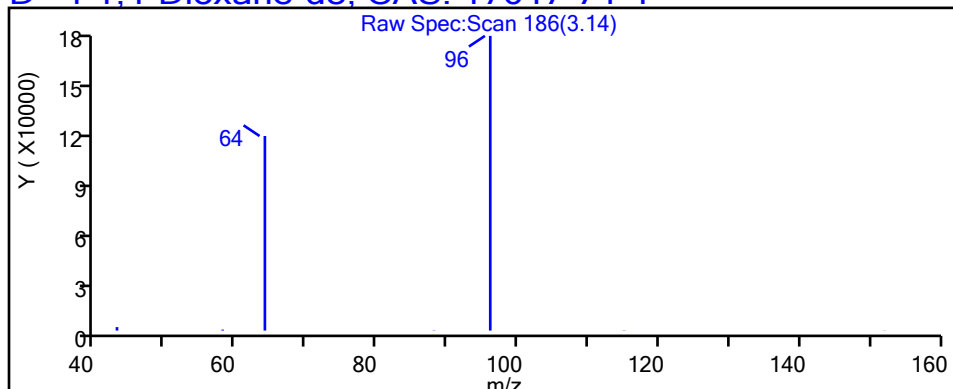
Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

Column:

Detector MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159036.D

Injection Date: 28-Oct-2020 23:02:30

Instrument ID: HP5973U

Lims ID: 480-176996-B-4-A

Lab Sample ID: 480-176996-4

Client ID: B1243-W05

Operator ID: JM

ALS Bottle#:

28

Worklist Smp#: 28

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

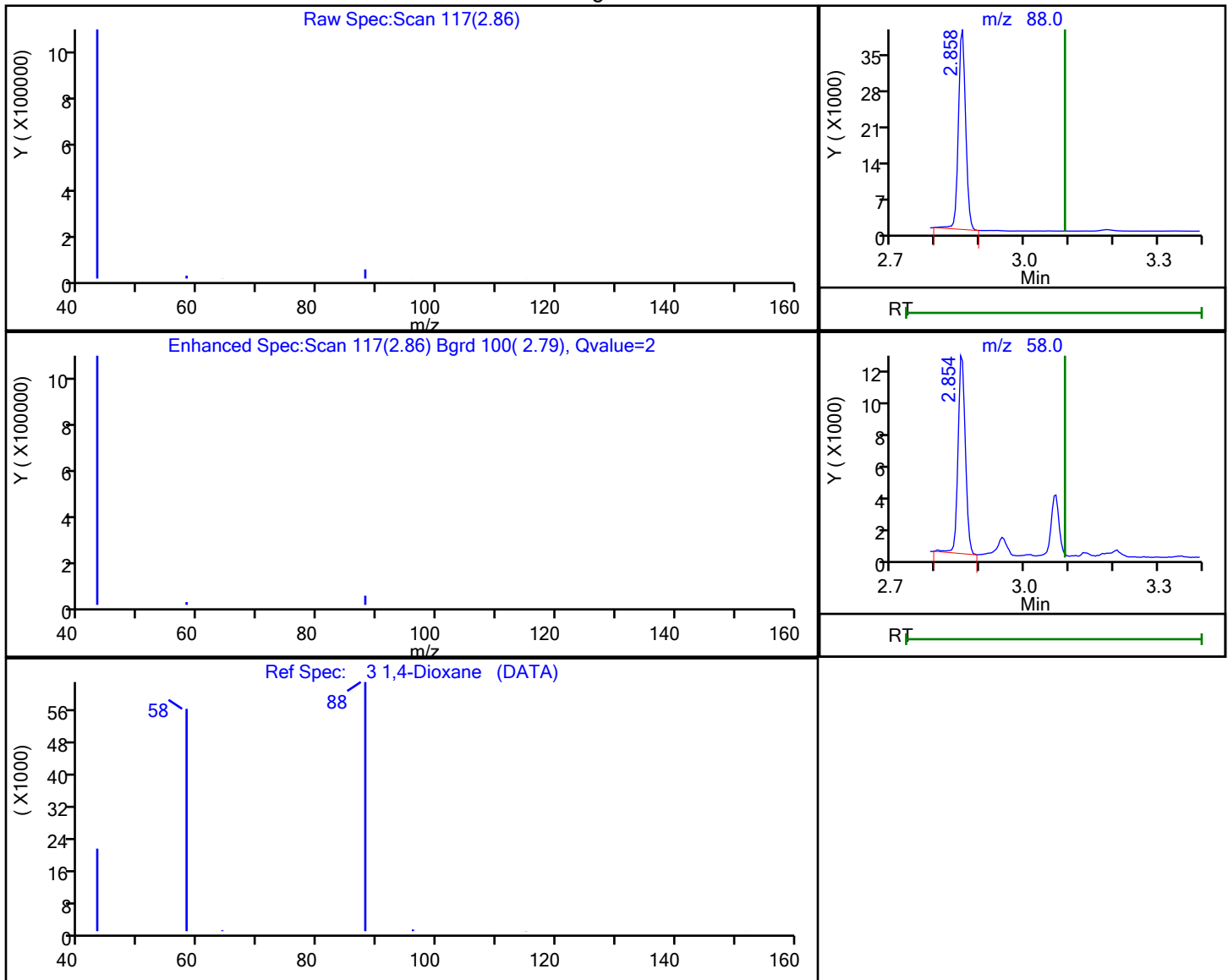
Column:

Detector

MS SCAN

3 1,4-Dioxane, CAS: 123-91-1

Processing Results



RT	Mass	Response	Amount
2.86	88.00	44560	2.018510
2.85	58.00	14160	

Reviewer: marshallj, 29-Oct-2020 15:39:20

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
SDG No.: _____
Client Sample ID: MW-1253 IR Lab Sample ID: 480-176996-5
Matrix: Water Lab File ID: U33159037.D
Analysis Method: 8270D SIM ID Date Collected: 10/21/2020 13:15
Extract. Method: 3510C Date Extracted: 10/26/2020 08:16
Sample wt/vol: 1050 (mL) Date Analyzed: 10/28/2020 23:25
Con. Extract Vol.: 1 (mL) Dilution Factor: 1
Injection Volume: 1 (uL) Level: (low/med) Low
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 556213 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.19	0.095

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	31		15-110

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159037.D
 Lims ID: 480-176996-B-5-A
 Client ID: MW-1253 IR
 Sample Type: Client
 Inject. Date: 28-Oct-2020 23:25:30 ALS Bottle#: 29 Worklist Smp#: 29
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094517-029
 Operator ID: JM Instrument ID: HP5973U
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 29-Oct-2020 15:43:28 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1674

First Level Reviewer: marshallj

Date: 29-Oct-2020 15:39:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	%Rec	Flags
D 1 1,4-Dioxane-d8	96	3.135	3.045	0.090	96	185783	3.12	31.2	
3 1,4-Dioxane	88		3.090				ND		U
* 2 1,4-Dichlorobenzene-d4	152	6.134	6.126	0.008	94	489516	4.00		

QC Flag Legend

Processing Flags

Review Flags

U - Marked Undetected

Reagents:

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159037.D

Injection Date: 28-Oct-2020 23:25:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: 480-176996-B-5-A

Lab Sample ID: 480-176996-5

Worklist Smp#: 29

Client ID: MW-1253 IR

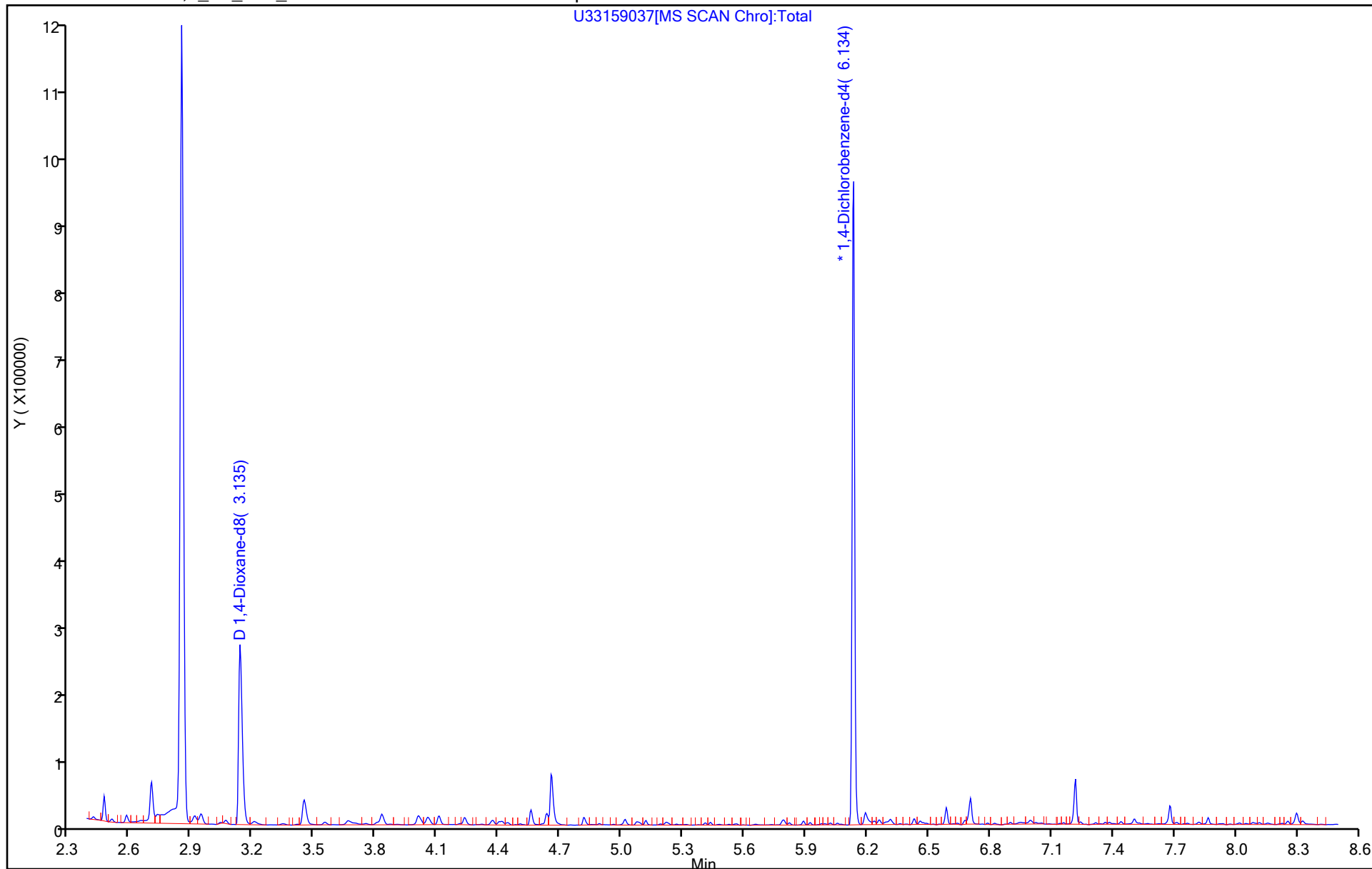
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 29

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159037.D

Injection Date: 28-Oct-2020 23:25:30

Instrument ID: HP5973U

Lims ID: 480-176996-B-5-A

Lab Sample ID: 480-176996-5

Client ID: MW-1253 IR

Operator ID: JM

ALS Bottle#: 29

Worklist Smp#: 29

Injection Vol: 1.0 ul

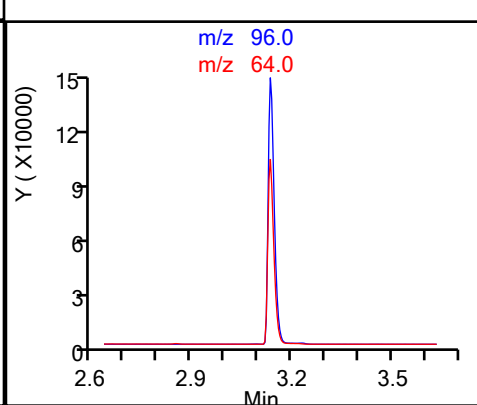
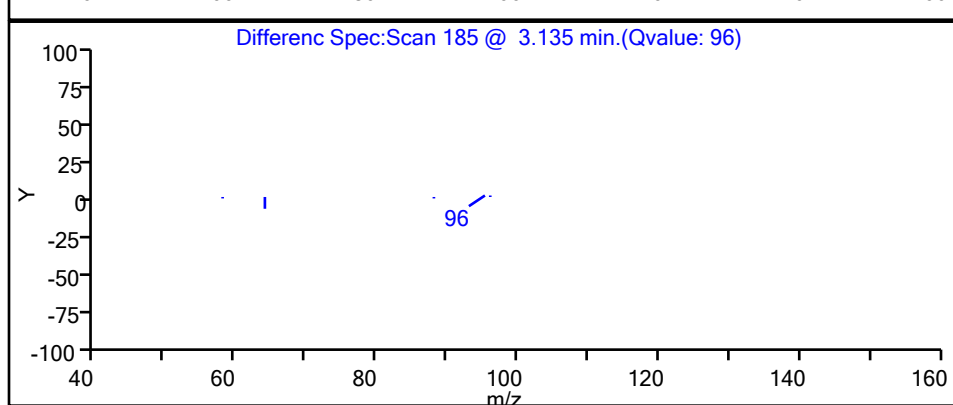
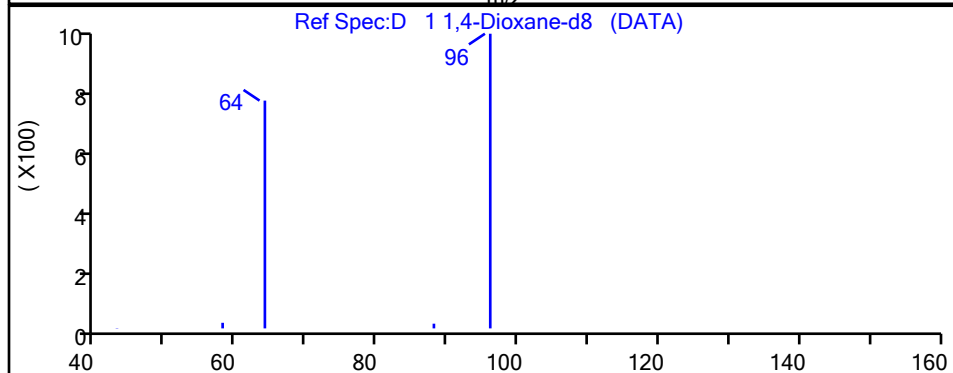
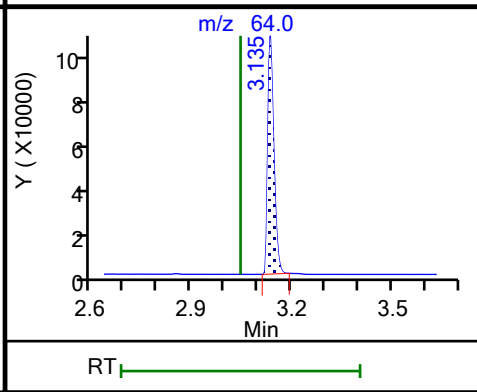
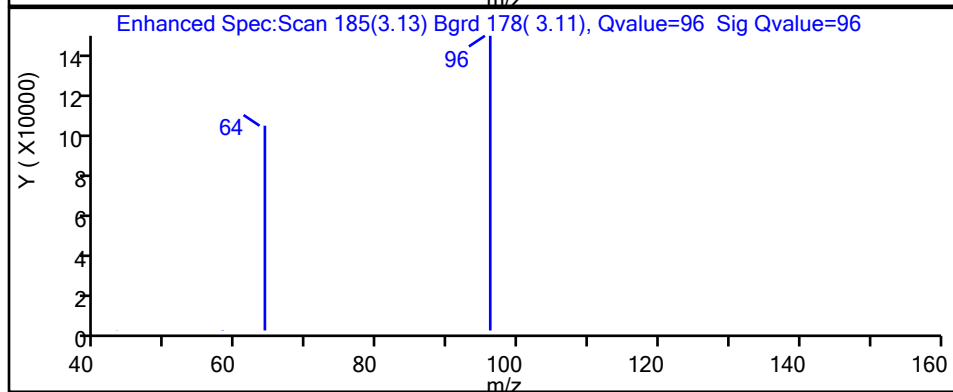
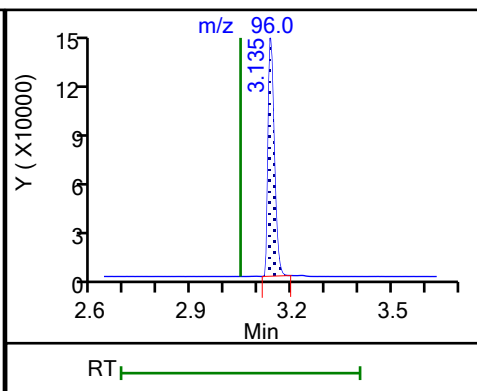
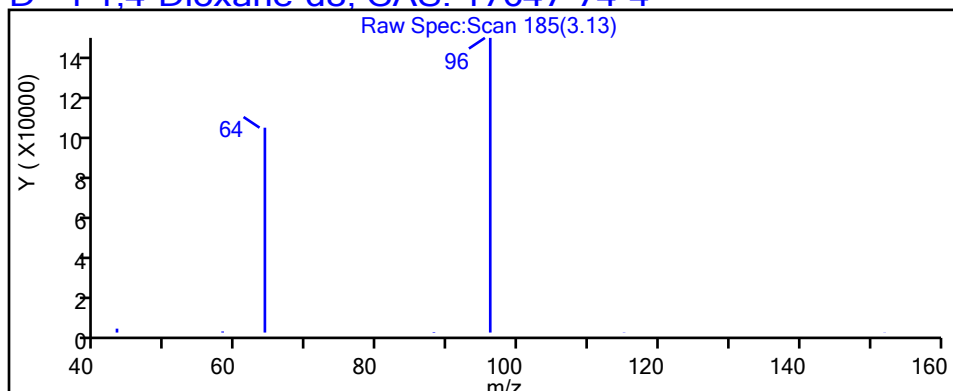
Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

Column:

Detector MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159037.D

Injection Date: 28-Oct-2020 23:25:30

Instrument ID: HP5973U

Lims ID: 480-176996-B-5-A

Lab Sample ID: 480-176996-5

Client ID: MW-1253 IR

Operator ID: JM

ALS Bottle#:

29

Worklist Smp#: 29

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

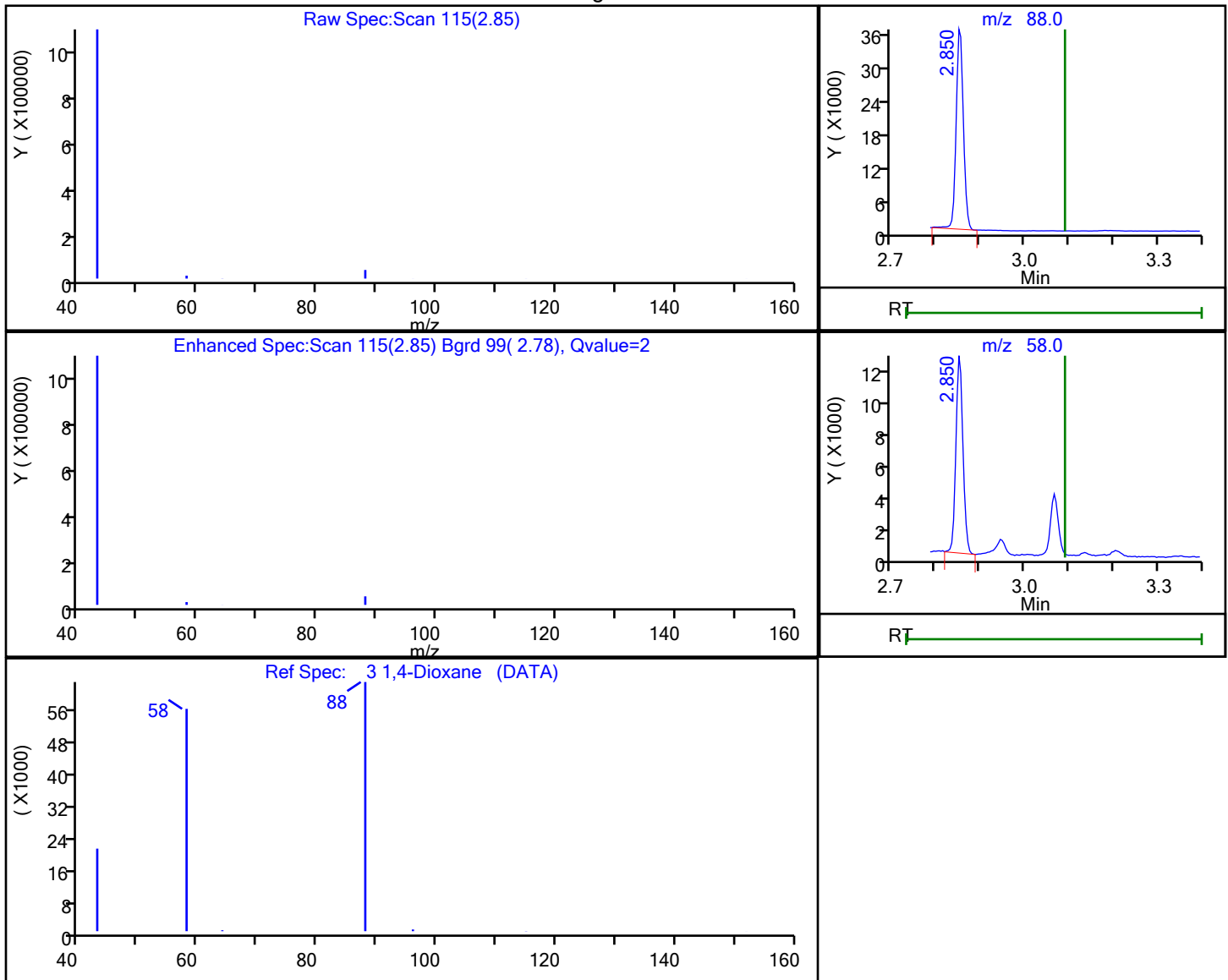
Column:

Detector

MS SCAN

3 1,4-Dioxane, CAS: 123-91-1

Processing Results



RT	Mass	Response	Amount
2.85	88.00	41323	2.114075
2.85	58.00	13091	

Reviewer: marshallj, 29-Oct-2020 15:39:25

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
 SDG No.: _____
 Client Sample ID: B1219-W06 Lab Sample ID: 480-176996-6
 Matrix: Water Lab File ID: U33159038.D
 Analysis Method: 8270D SIM ID Date Collected: 10/21/2020 14:00
 Extract. Method: 3510C Date Extracted: 10/26/2020 08:16
 Sample wt/vol: 1050 (mL) Date Analyzed: 10/28/2020 23:49
 Con. Extract Vol.: 1 (mL) Dilution Factor: 1
 Injection Volume: 1 (uL) Level: (low/med) Low
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 556213 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.19	0.095

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	33		15-110

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159038.D
 Lims ID: 480-176996-B-6-A
 Client ID: B1219-W06
 Sample Type: Client
 Inject. Date: 28-Oct-2020 23:49:30 ALS Bottle#: 30 Worklist Smp#: 30
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094517-030
 Operator ID: JM Instrument ID: HP5973U
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 29-Oct-2020 15:43:28 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1674

First Level Reviewer: marshallj

Date: 29-Oct-2020 15:39:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	%Rec	Flags
D 1 1,4-Dioxane-d8	96	3.131	3.045	0.086	92	197249	3.25	32.5	
3 1,4-Dioxane	88		3.090				ND		U
* 2 1,4-Dichlorobenzene-d4	152	6.134	6.126	0.008	94	498158	4.00		

QC Flag Legend

Processing Flags

Review Flags

U - Marked Undetected

Reagents:

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159038.D

Injection Date: 28-Oct-2020 23:49:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: 480-176996-B-6-A

Lab Sample ID: 480-176996-6

Worklist Smp#: 30

Client ID: B1219-W06

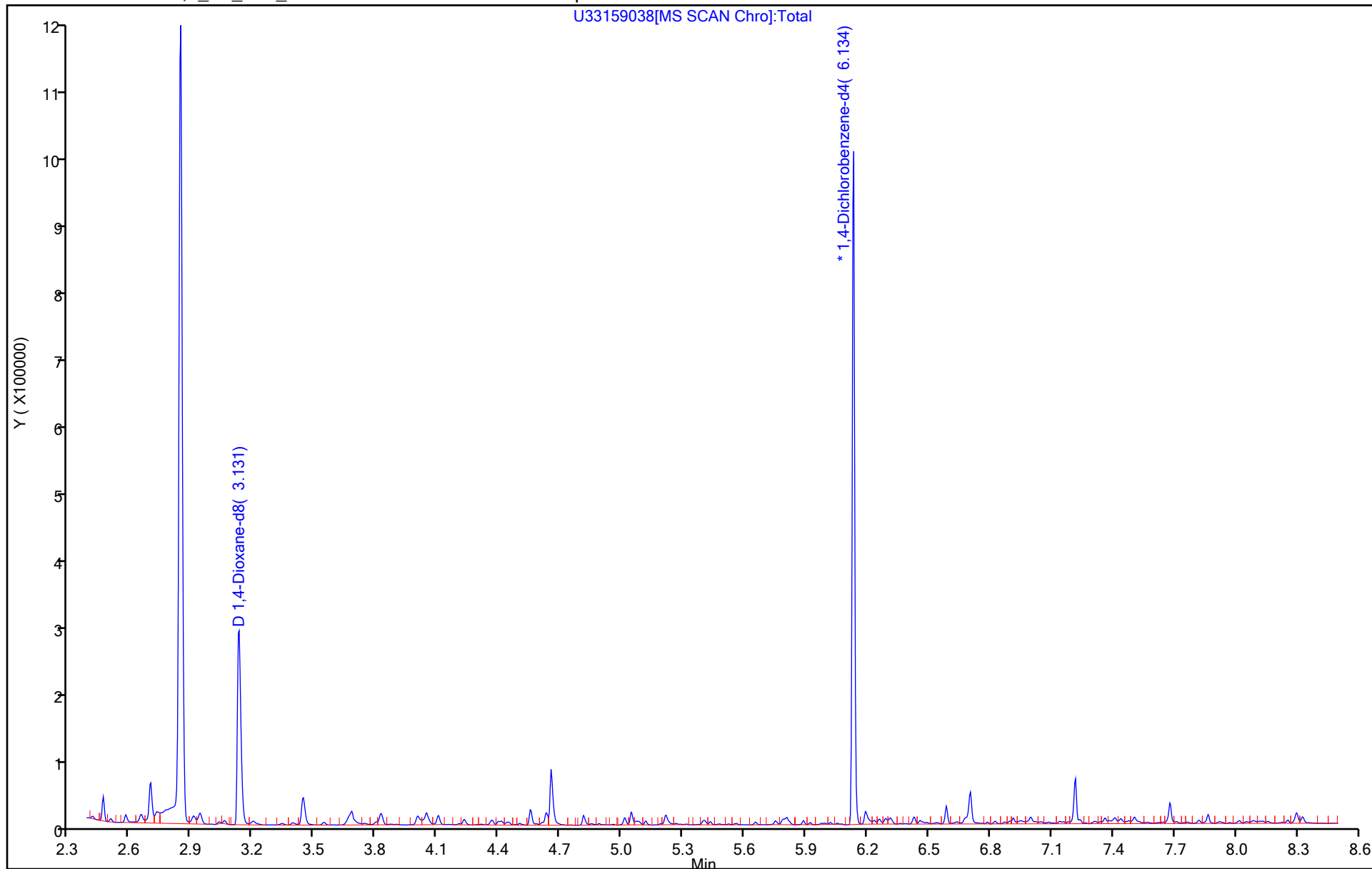
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 30

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159038.D

Injection Date: 28-Oct-2020 23:49:30

Instrument ID: HP5973U

Lims ID: 480-176996-B-6-A

Lab Sample ID: 480-176996-6

Client ID: B1219-W06

Operator ID: JM

ALS Bottle#: 30

Worklist Smp#: 30

Injection Vol: 1.0 ul

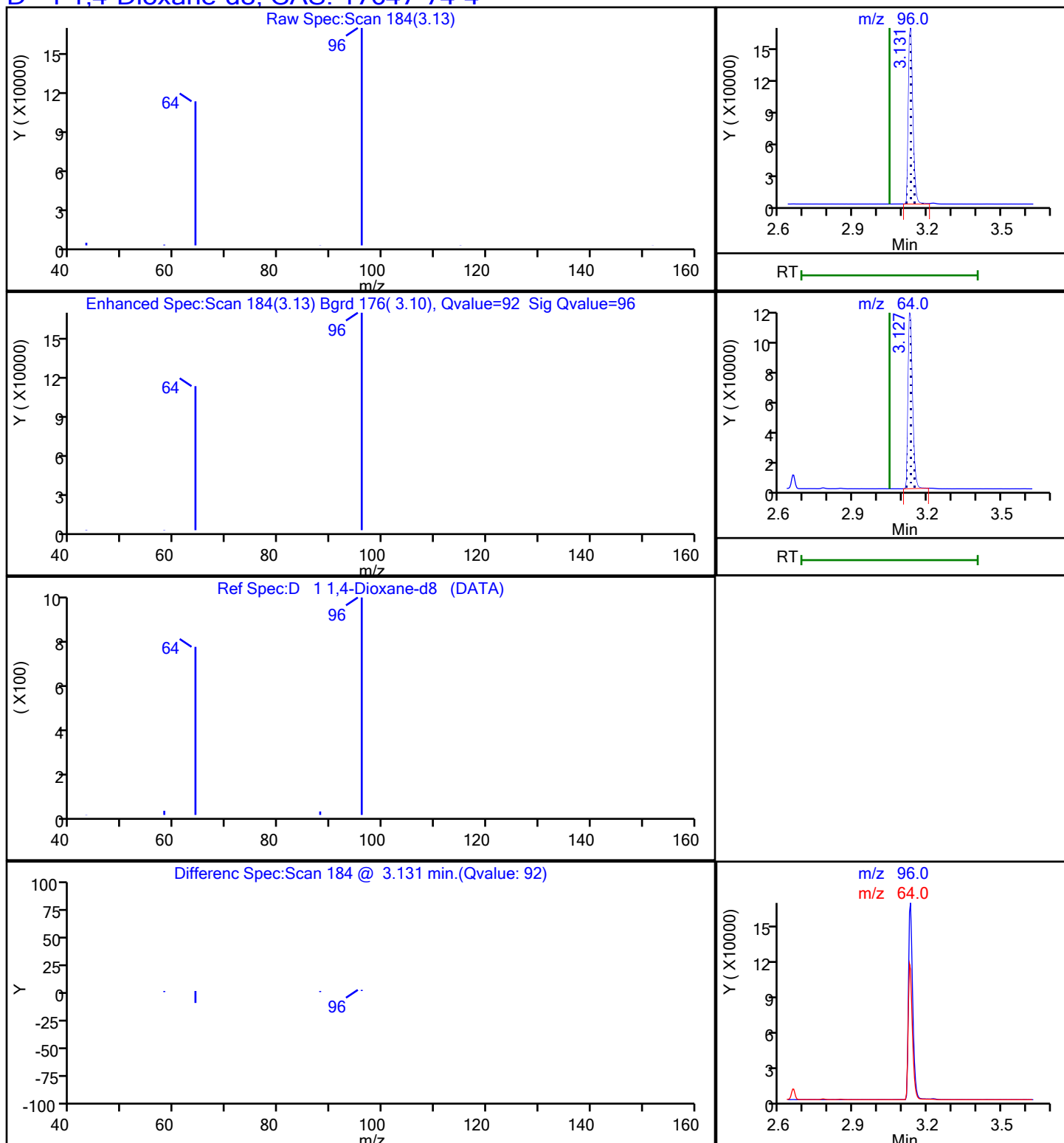
Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

Column:

Detector MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159038.D

Injection Date: 28-Oct-2020 23:49:30

Instrument ID: HP5973U

Lims ID: 480-176996-B-6-A

Lab Sample ID: 480-176996-6

Client ID: B1219-W06

Operator ID: JM

ALS Bottle#:

30

Worklist Smp#: 30

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

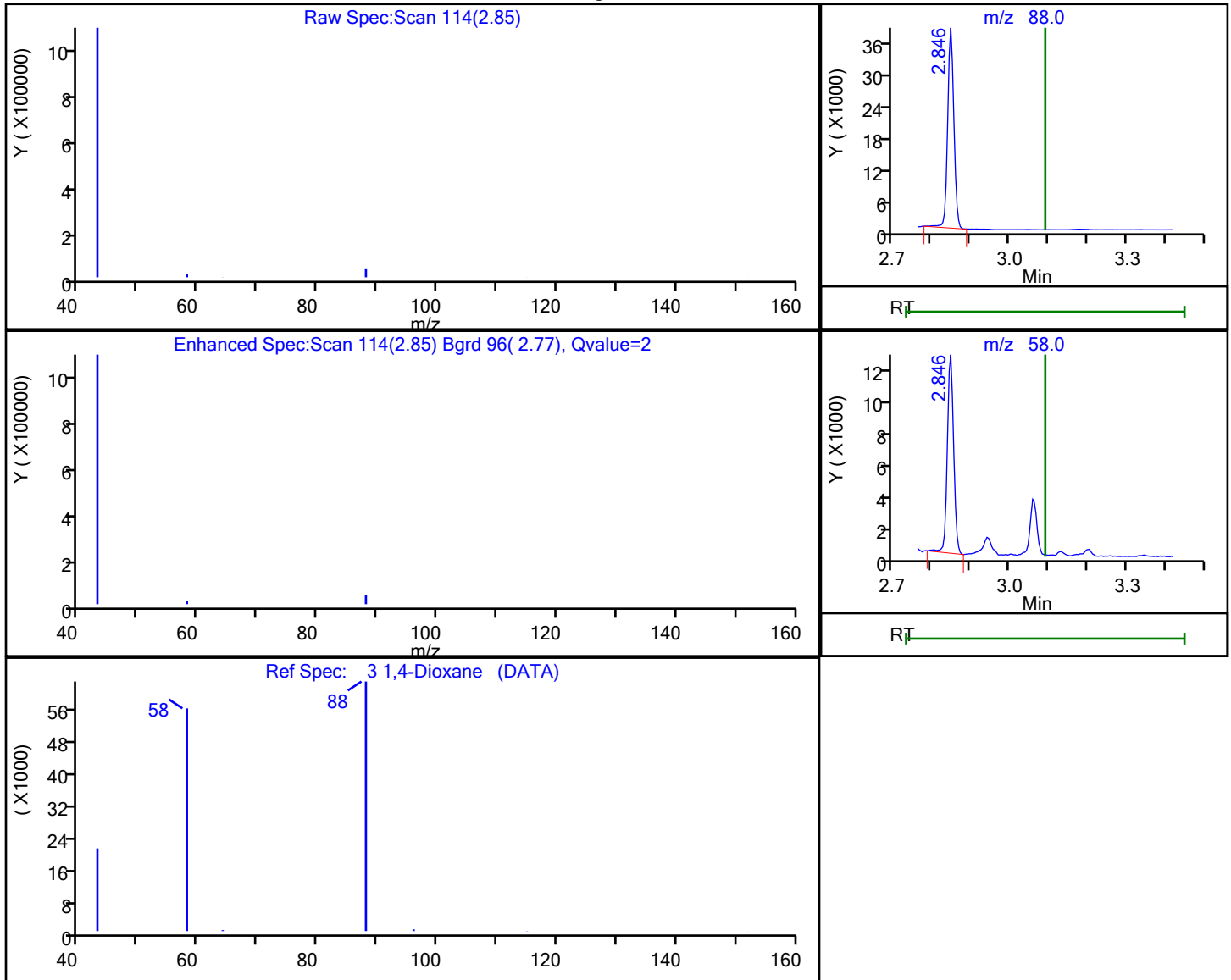
Column:

Detector

MS SCAN

3 1,4-Dioxane, CAS: 123-91-1

Processing Results



RT	Mass	Response	Amount
2.85	88.00	42684	2.056766
2.85	58.00	13739	

Reviewer: marshallj, 29-Oct-2020 15:39:30

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
 SDG No.: _____
 Client Sample ID: B-54 B1266-W12 Lab Sample ID: 480-176996-7
 Matrix: Water Lab File ID: U33159042.D
 Analysis Method: 8270D SIM ID Date Collected: 10/21/2020 15:10
 Extract. Method: 3510C Date Extracted: 10/26/2020 08:16
 Sample wt/vol: 1050 (mL) Date Analyzed: 10/29/2020 01:32
 Con. Extract Vol.: 1 (mL) Dilution Factor: 1
 Injection Volume: 1 (uL) Level: (low/med) Low
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 556258 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.19	0.095

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	30		15-110

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\U33159042.D
 Lims ID: 480-176996-A-7-A
 Client ID: B-54/B1266-W12
 Sample Type: Client
 Inject. Date: 29-Oct-2020 01:32:30 ALS Bottle#: 34 Worklist Smp#: 4
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094526-004
 Operator ID: JM Instrument ID: HP5973U
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 29-Oct-2020 15:44:46 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1674

First Level Reviewer: marshallj

Date: 29-Oct-2020 15:40:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	%Rec	Flags
D 1 1,4-Dioxane-d8	96	3.131	3.045	0.086	93	176875	3.00	30.0	
3 1,4-Dioxane	88		3.090				ND		U
* 2 1,4-Dichlorobenzene-d4	152	6.130	6.126	0.004	95	485232	4.00		

QC Flag Legend

Processing Flags

Review Flags

U - Marked Undetected

Reagents:

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\U33159042.D

Injection Date: 29-Oct-2020 01:32:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: 480-176996-A-7-A

Lab Sample ID: 480-176996-7

Worklist Smp#: 4

Client ID: B-54/B1266-W12

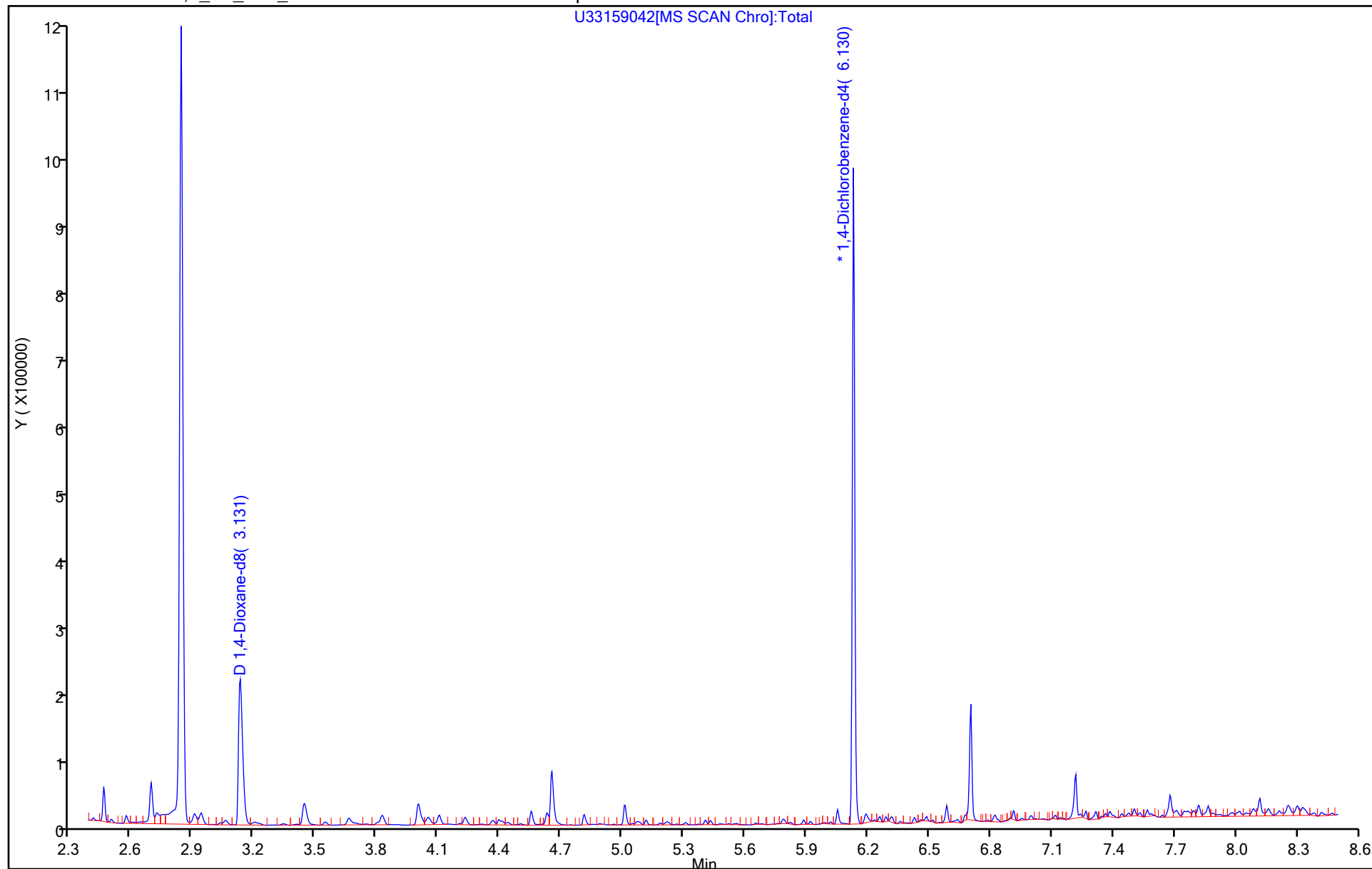
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 34

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\U33159042.D

Injection Date: 29-Oct-2020 01:32:30

Instrument ID: HP5973U

Lims ID: 480-176996-A-7-A

Lab Sample ID: 480-176996-7

Client ID: B-54/B1266-W12

Operator ID: JM

ALS Bottle#: 34

Worklist Smp#: 4

Injection Vol: 1.0 ul

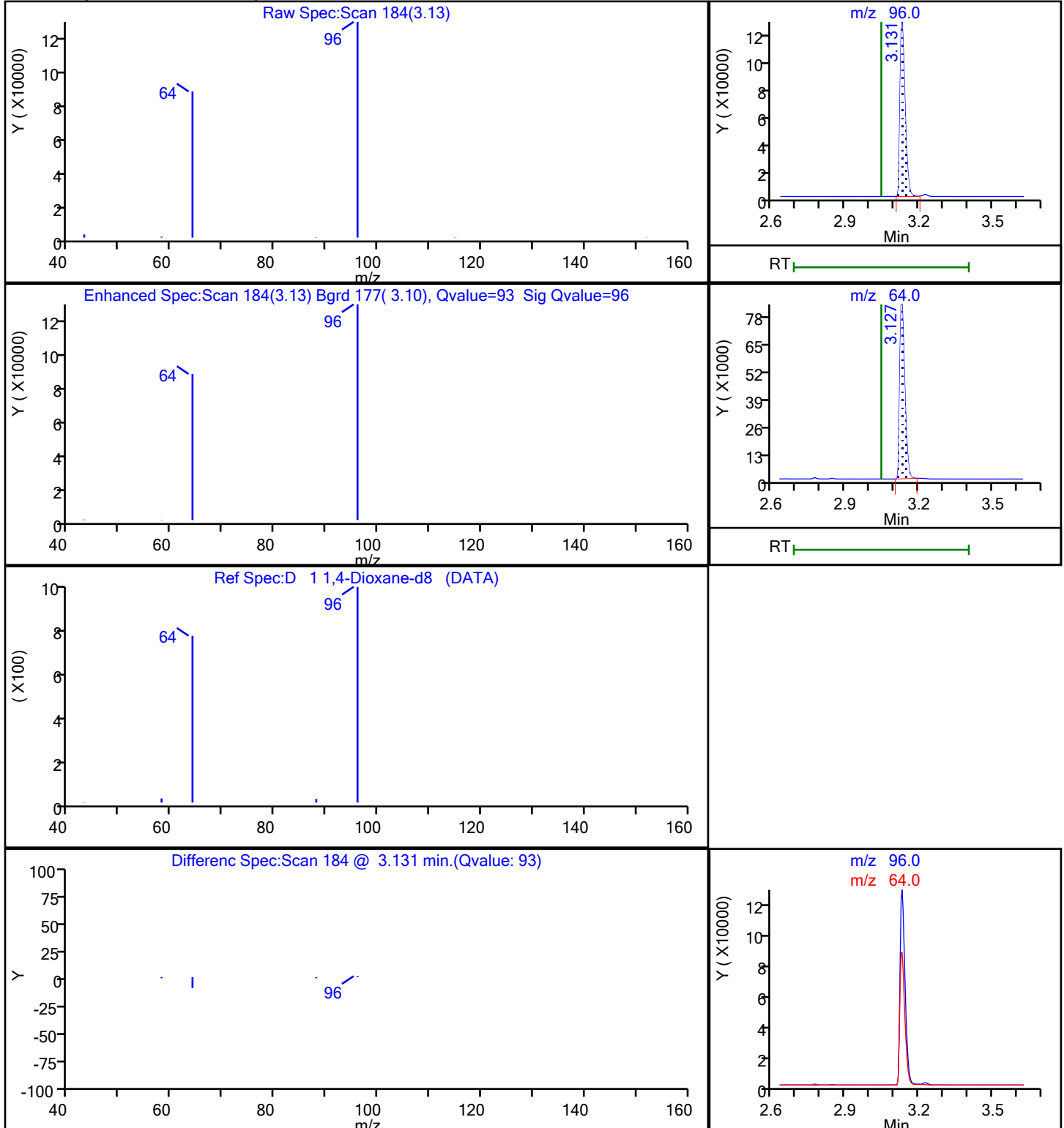
Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

Column:

Detector MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\U33159042.D

Injection Date: 29-Oct-2020 01:32:30

Instrument ID: HP5973U

Lims ID: 480-176996-A-7-A

Lab Sample ID: 480-176996-7

Client ID: B-54/B1266-W12

Operator ID: JM

ALS Bottle#:

34

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

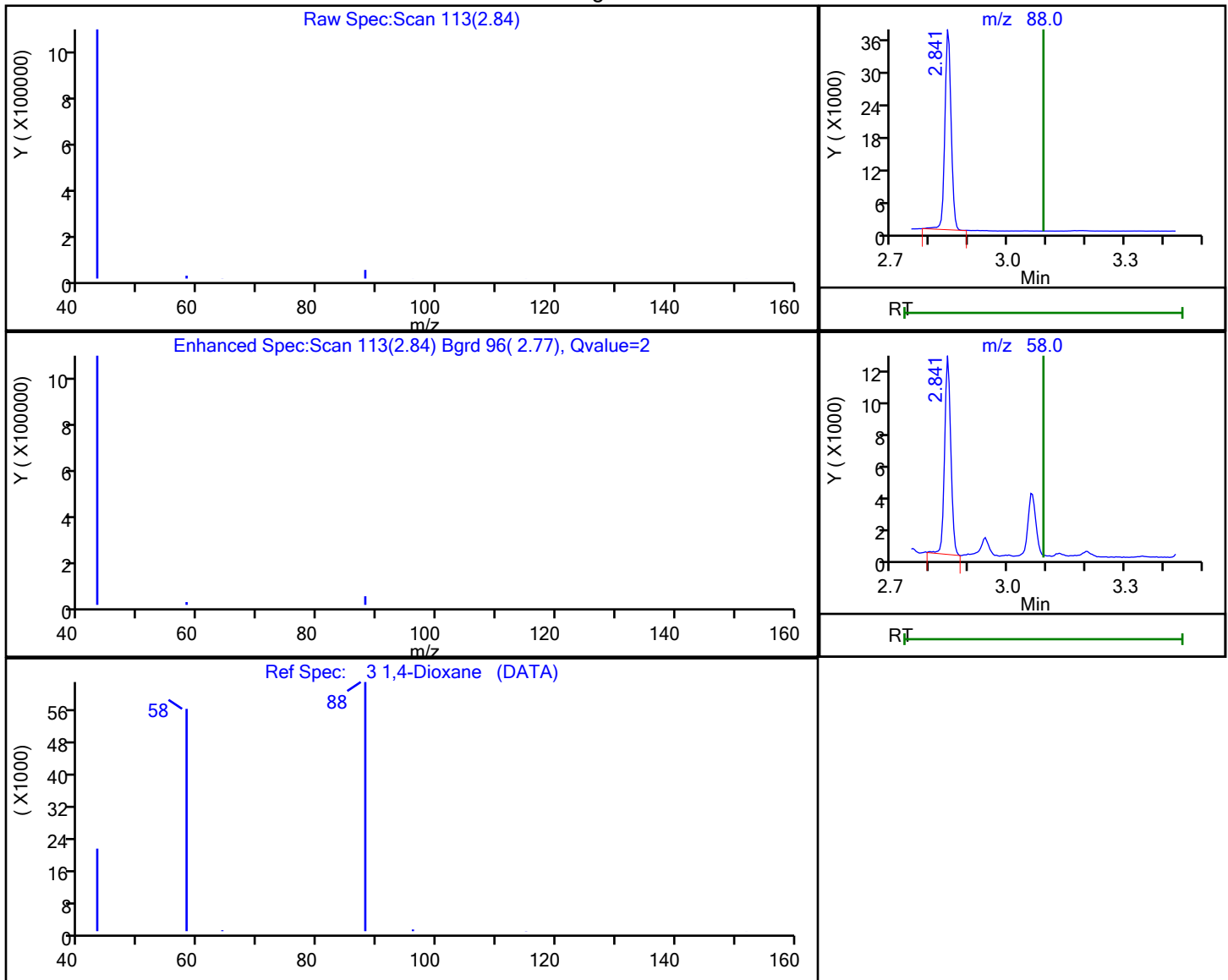
Limit Group: MB - 8270D SIM ID ICAL

Column:

Detector MS SCAN

3 1,4-Dioxane, CAS: 123-91-1

Processing Results



RT	Mass	Response	Amount
2.84	88.00	41840	2.248329
2.84	58.00	13480	

Reviewer: marshallj, 29-Oct-2020 15:40:53

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
SDG No.: _____
Client Sample ID: TPW-14 Lab Sample ID: 480-176996-8
Matrix: Water Lab File ID: U33159043.D
Analysis Method: 8270D SIM ID Date Collected: 10/21/2020 16:55
Extract. Method: 3510C Date Extracted: 10/26/2020 08:16
Sample wt/vol: 1030 (mL) Date Analyzed: 10/29/2020 01:56
Con. Extract Vol.: 1 (mL) Dilution Factor: 1
Injection Volume: 1 (uL) Level: (low/med) Low
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 556258 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.19	0.097

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	32		15-110

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\U33159043.D
 Lims ID: 480-176996-B-8-A
 Client ID: TPW-14
 Sample Type: Client
 Inject. Date: 29-Oct-2020 01:56:30 ALS Bottle#: 35 Worklist Smp#: 5
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094526-005
 Operator ID: JM Instrument ID: HP5973U
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 29-Oct-2020 15:44:46 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1674

First Level Reviewer: marshallj

Date: 29-Oct-2020 15:41:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	%Rec	Flags
D 1 1,4-Dioxane-d8	96	3.135	3.045	0.090	94	195883	3.25	32.5	
3 1,4-Dioxane	88		3.090				ND		U
* 2 1,4-Dichlorobenzene-d4	152	6.130	6.126	0.004	96	495806	4.00		

QC Flag Legend

Processing Flags

Review Flags

U - Marked Undetected

Reagents:

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\U33159043.D

Injection Date: 29-Oct-2020 01:56:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: 480-176996-B-8-A

Lab Sample ID: 480-176996-8

Worklist Smp#: 5

Client ID: TPW-14

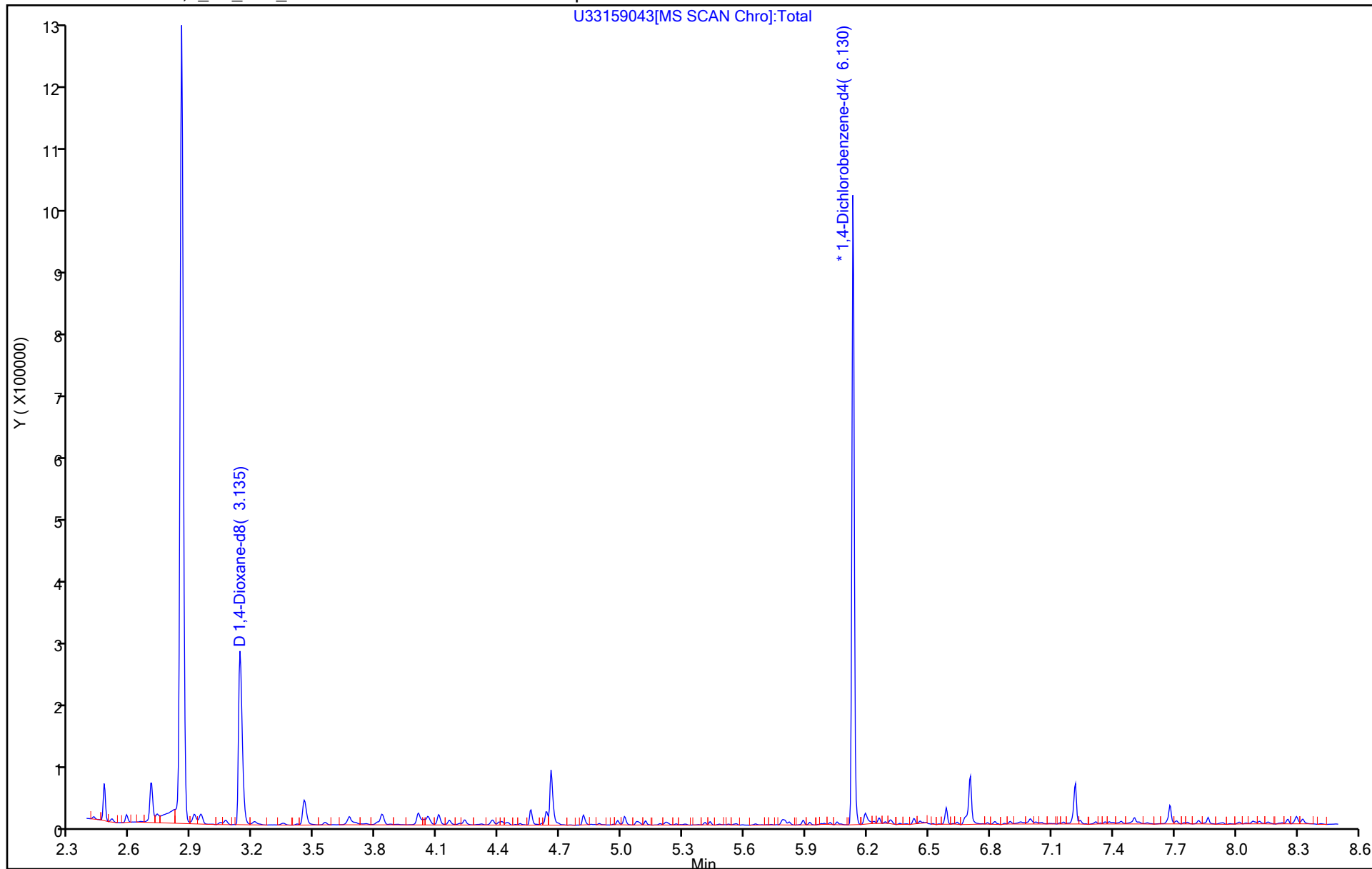
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 35

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\U33159043.D

Injection Date: 29-Oct-2020 01:56:30

Instrument ID: HP5973U

Lims ID: 480-176996-B-8-A

Lab Sample ID: 480-176996-8

Client ID: TPW-14

Operator ID: JM

ALS Bottle#: 35

Worklist Smp#: 5

Injection Vol: 1.0 ul

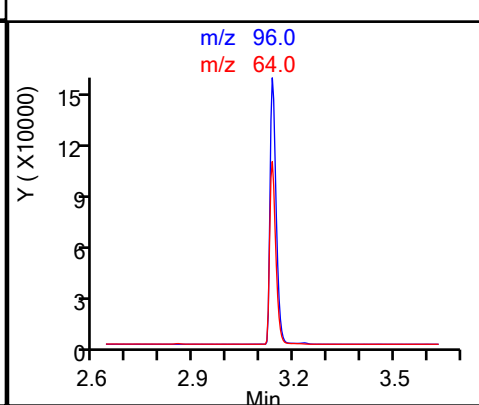
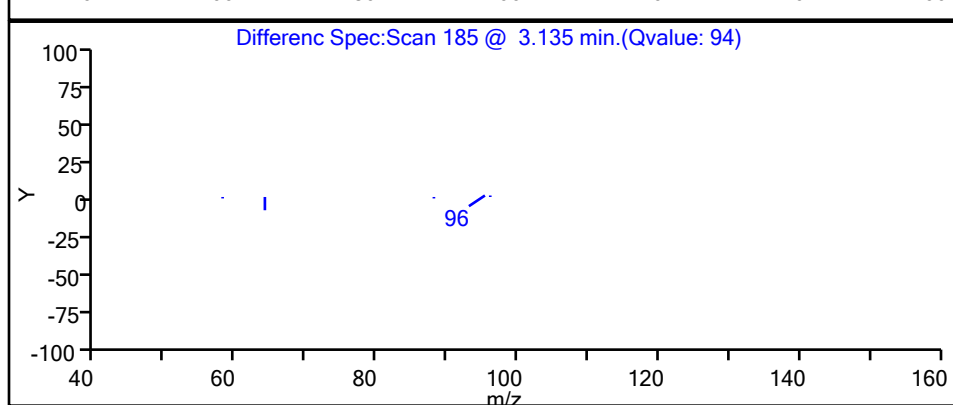
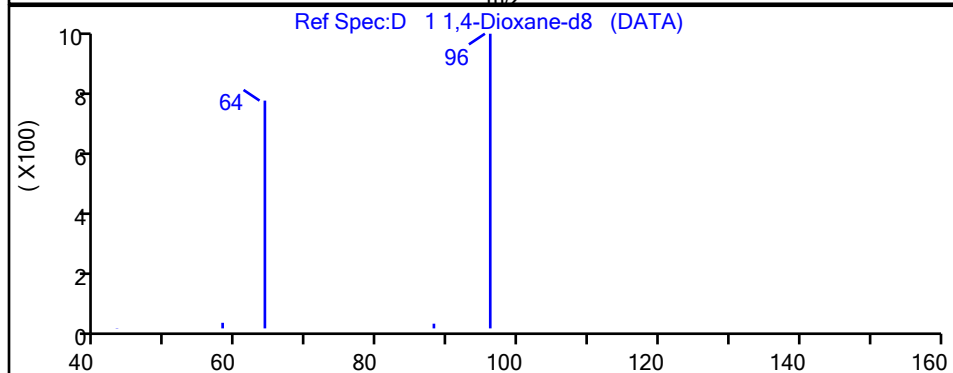
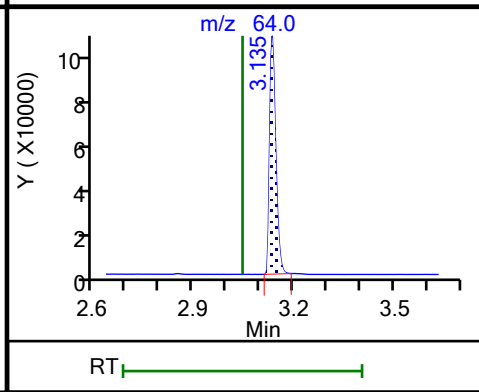
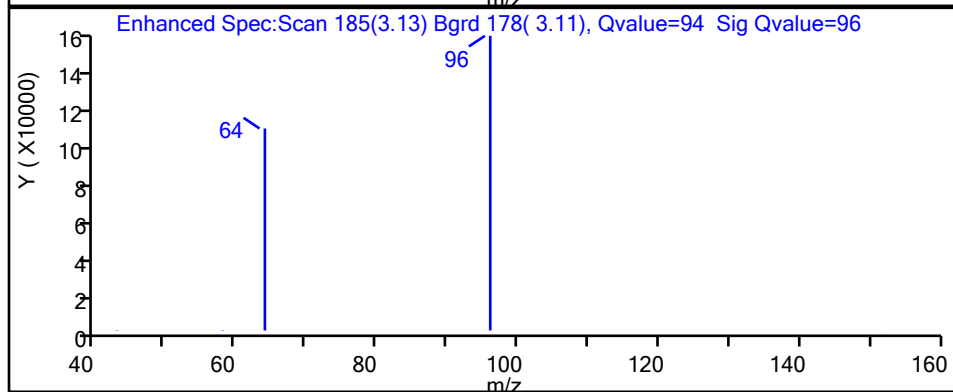
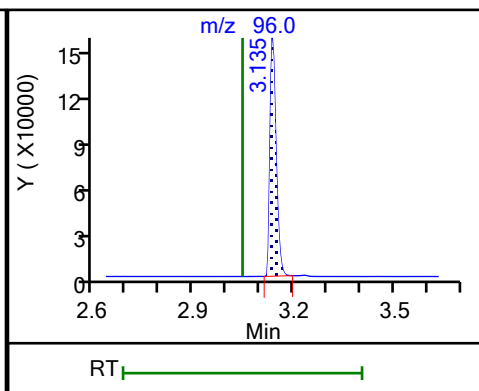
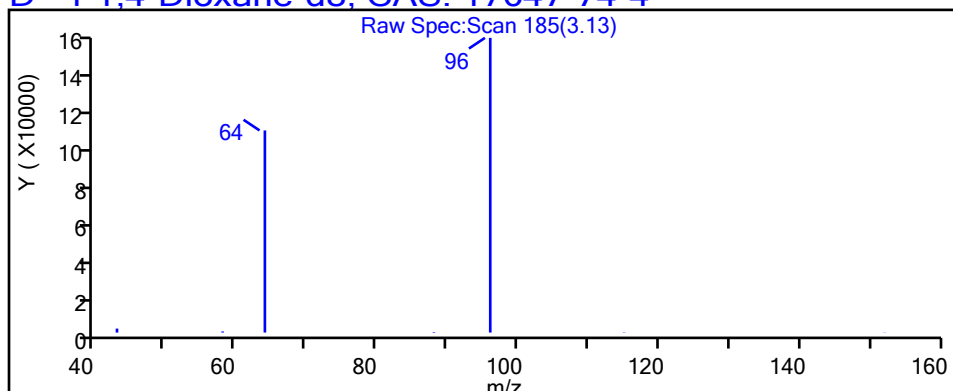
Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

Column:

Detector MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\U33159043.D

Injection Date: 29-Oct-2020 01:56:30

Instrument ID: HP5973U

Lims ID: 480-176996-B-8-A

Lab Sample ID: 480-176996-8

Client ID: TPW-14

Operator ID: JM

ALS Bottle#:

35

Worklist Smp#: 5

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

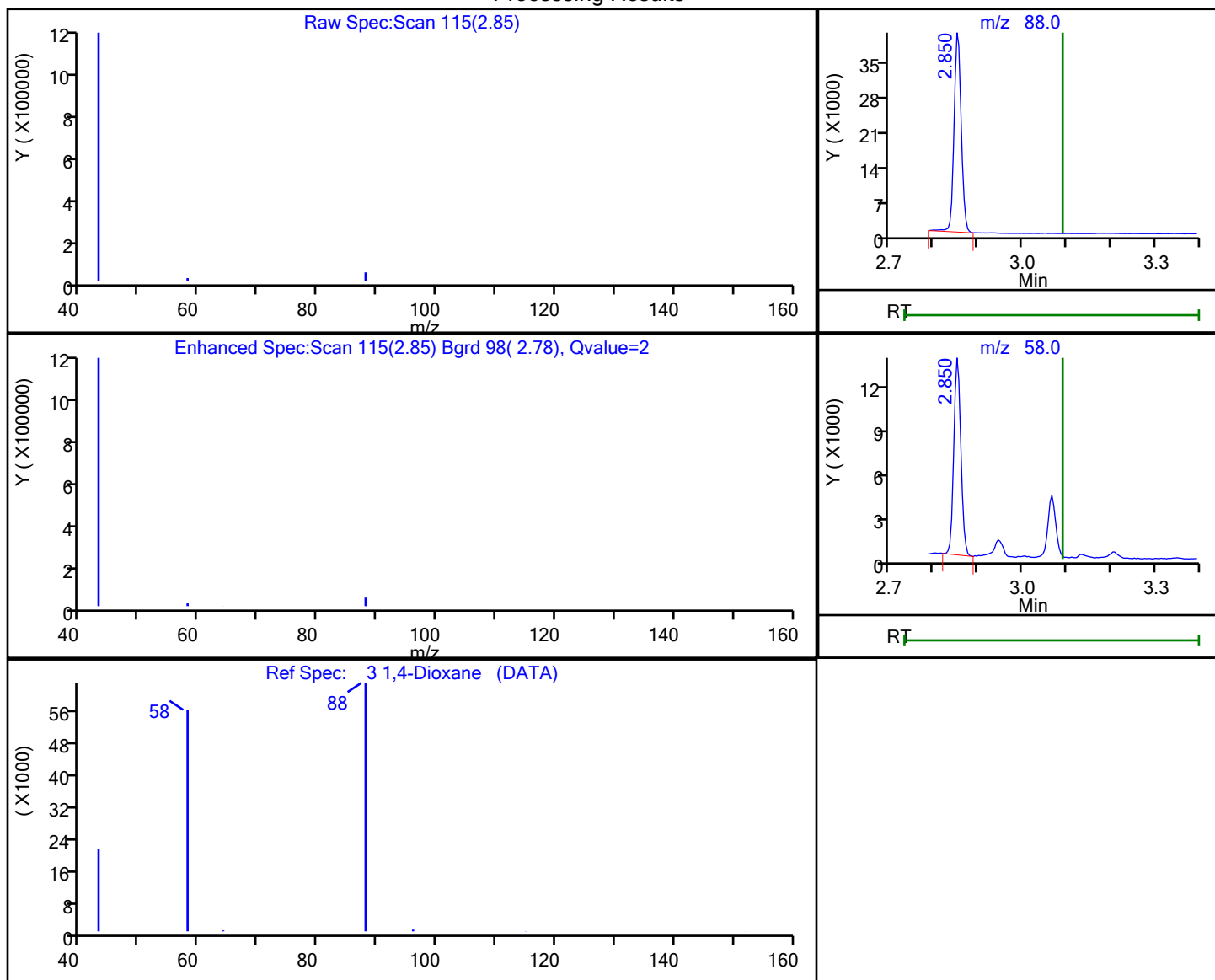
Column:

Detector

MS SCAN

3 1,4-Dioxane, CAS: 123-91-1

Processing Results



RT	Mass	Response	Amount
2.85	88.00	44722	2.169997
2.85	58.00	14154	

Reviewer: marshallj, 29-Oct-2020 15:41:00

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
SDG No.: _____
Client Sample ID: DUPLICATE Lab Sample ID: 480-176996-9
Matrix: Water Lab File ID: U33159044.D
Analysis Method: 8270D SIM ID Date Collected: 10/21/2020 00:00
Extract. Method: 3510C Date Extracted: 10/26/2020 08:16
Sample wt/vol: 1050 (mL) Date Analyzed: 10/29/2020 02:19
Con. Extract Vol.: 1 (mL) Dilution Factor: 1
Injection Volume: 1 (uL) Level: (low/med) Low
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 556258 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.19	0.095

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	32		15-110

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\U33159044.D
 Lims ID: 480-176996-B-9-A
 Client ID: DUPLICATE
 Sample Type: Client
 Inject. Date: 29-Oct-2020 02:19:30 ALS Bottle#: 36 Worklist Smp#: 6
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094526-006
 Operator ID: JM Instrument ID: HP5973U
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 29-Oct-2020 15:44:46 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1674

First Level Reviewer: marshallj

Date: 29-Oct-2020 15:41:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	%Rec	Flags
D 1 1,4-Dioxane-d8	96	3.135	3.045	0.090	96	190912	3.24	32.4	
3 1,4-Dioxane	88		3.090				ND		U
* 2 1,4-Dichlorobenzene-d4	152	6.134	6.126	0.008	94	484418	4.00		

QC Flag Legend

Processing Flags

Review Flags

U - Marked Undetected

Reagents:

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\U33159044.D

Injection Date: 29-Oct-2020 02:19:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: 480-176996-B-9-A

Lab Sample ID: 480-176996-9

Worklist Smp#: 6

Client ID: DUPLICATE

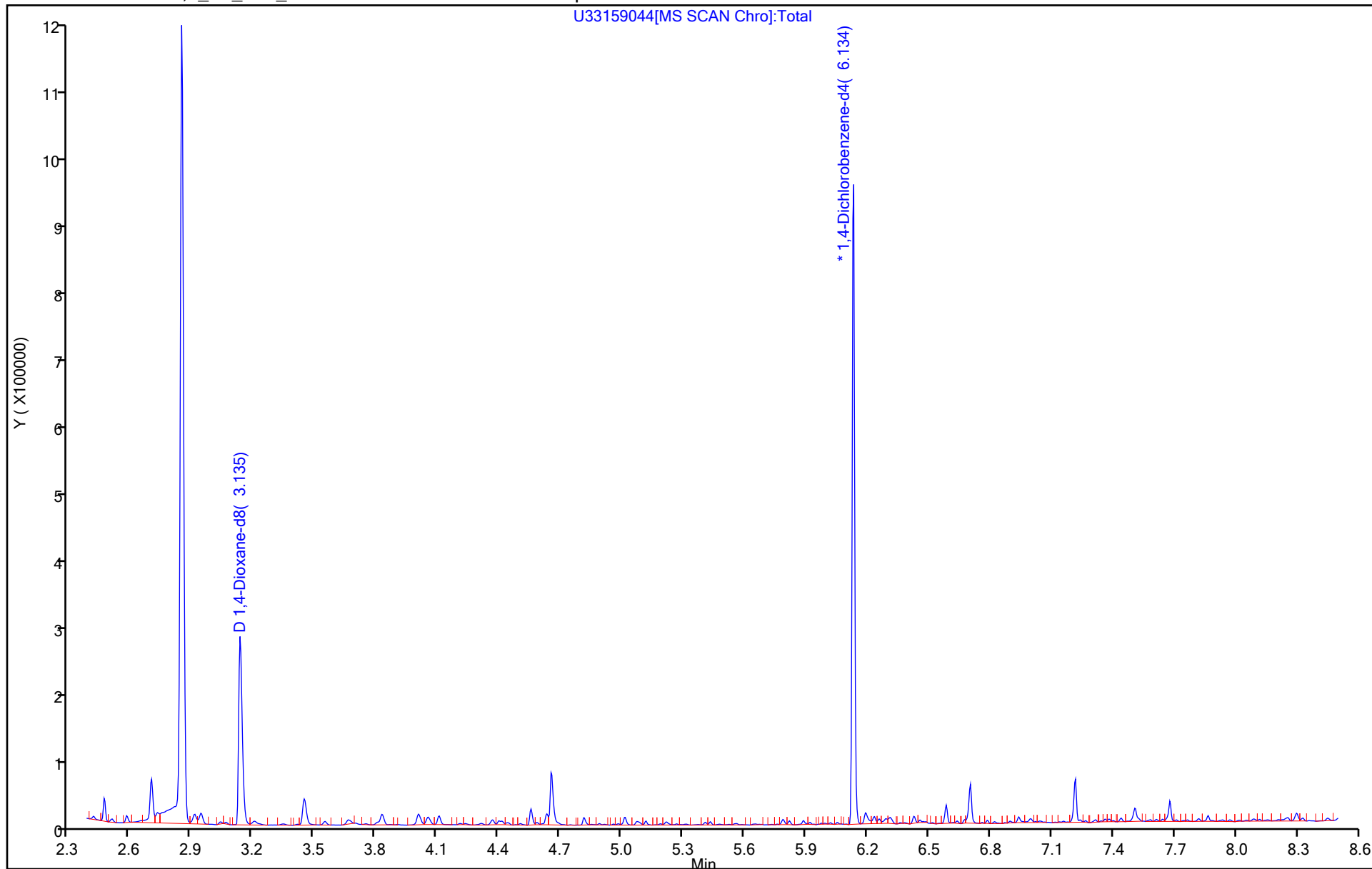
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 36

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\U33159044.D

Injection Date: 29-Oct-2020 02:19:30

Instrument ID: HP5973U

Lims ID: 480-176996-B-9-A

Lab Sample ID: 480-176996-9

Client ID: DUPLICATE

Operator ID: JM

ALS Bottle#: 36

Worklist Smp#: 6

Injection Vol: 1.0 ul

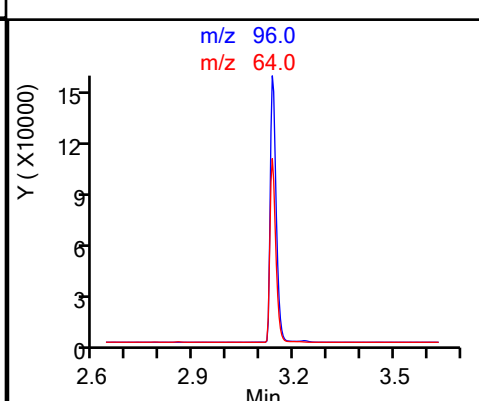
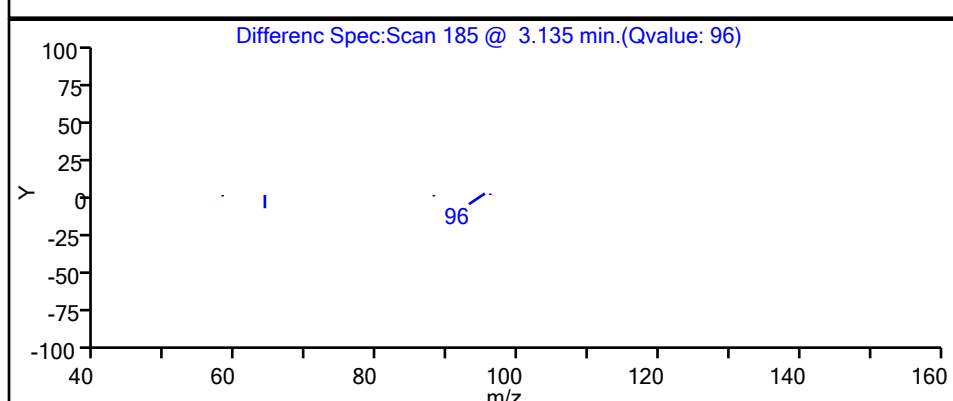
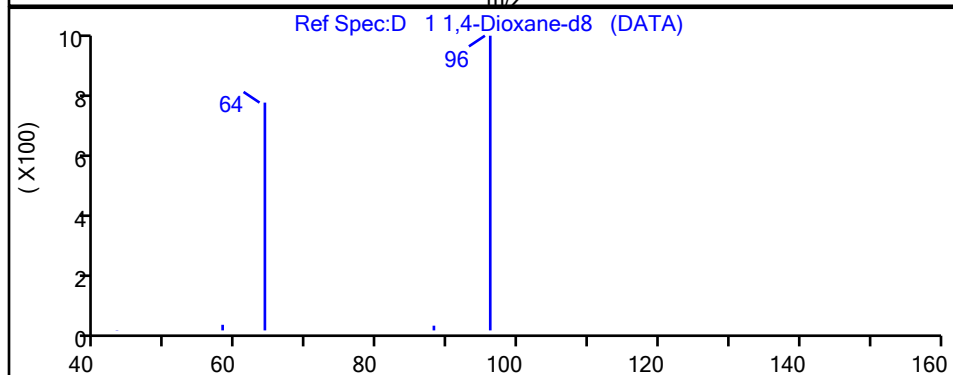
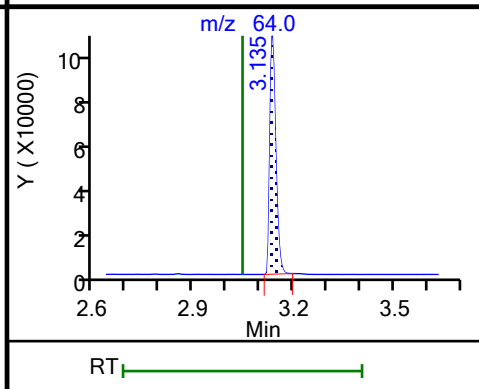
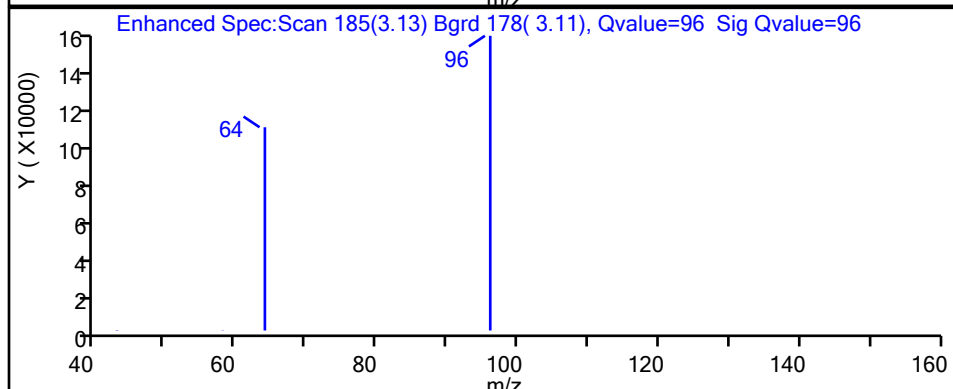
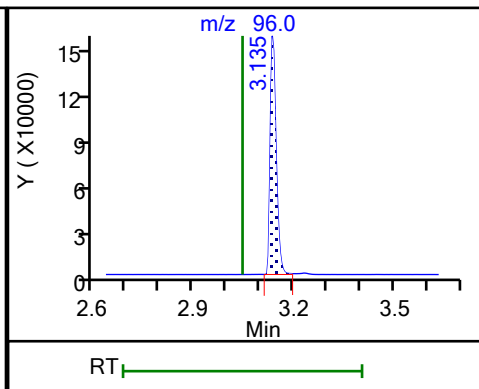
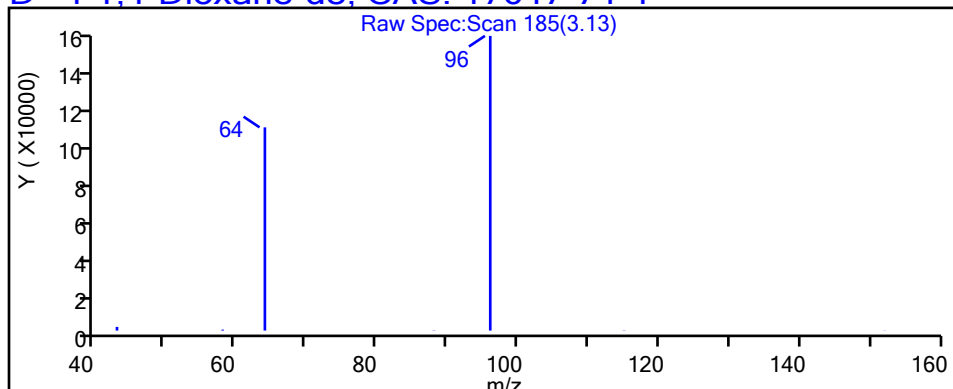
Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

Column:

Detector MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\U33159044.D

Injection Date: 29-Oct-2020 02:19:30

Instrument ID: HP5973U

Lims ID: 480-176996-B-9-A

Lab Sample ID: 480-176996-9

Client ID: DUPLICATE

Operator ID: JM

ALS Bottle#:

36

Worklist Smp#: 6

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

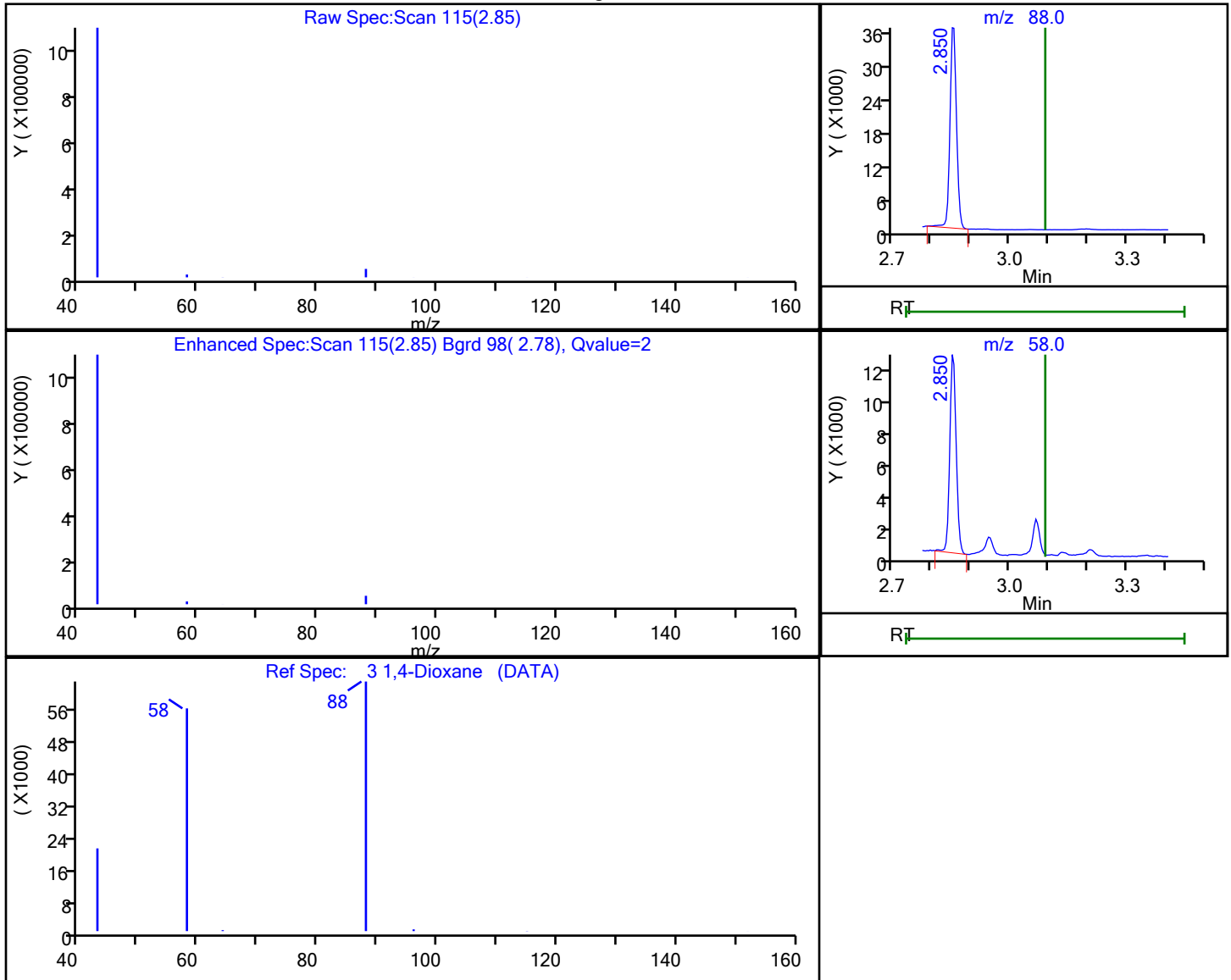
Column:

Detector

MS SCAN

3 1,4-Dioxane, CAS: 123-91-1

Processing Results



RT	Mass	Response	Amount
2.85	88.00	42015	2.091730
2.85	58.00	13414	

Reviewer: marshallj, 29-Oct-2020 15:41:06

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1 Analy Batch No.: 555321

SDG No.: _____

Instrument ID: HP5973U GC Column: RXI-5Sil MS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/22/2020 19:16 Calibration End Date: 10/22/2020 21:13 Calibration ID: 40483

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 480-555321/3	U33158828.D
Level 2	IC 480-555321/4	U33158829.D
Level 3	ICIS 480-555321/5	U33158830.D
Level 4	IC 480-555321/6	U33158831.D
Level 5	IC 480-555321/7	U33158832.D
Level 6	IC 480-555321/8	U33158833.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	1.0683 1.0526	1.0539	1.0409	1.0478	1.0493	AveID		1.0521			0.0100	0.9		20.0			
1,4-Dioxane-d8	0.4845 0.4788	0.4933	0.4844	0.4904	0.4896	Ave		0.4868			0.0100	1.1		20.0			

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

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1 Analy Batch No.: 555321

SDG No.: _____

Instrument ID: HP5973U GC Column: RXI-5Sil MS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/22/2020 19:16 Calibration End Date: 10/22/2020 21:13 Calibration ID: 40483

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 480-555321/3	U33158828.D
Level 2	IC 480-555321/4	U33158829.D
Level 3	ICIS 480-555321/5	U33158830.D
Level 4	IC 480-555321/6	U33158831.D
Level 5	IC 480-555321/7	U33158832.D
Level 6	IC 480-555321/8	U33158833.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,4-Dioxane		AveID	16077 100344	33188	51186	67293	87289	0.200 1.20	0.400	0.600	0.800	1.00
1,4-Dioxane-d8	DCBd 4	Ave	150492 953326	314919	491745	642261	831844	2.00 12.0	4.00	6.00	8.00	10.0

Curve Type Legend:

Ave = Average ISTD
AveID = Average isotope dilution

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158828.D
 Lims ID: IC SIM .2
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 22-Oct-2020 19:16:30 ALS Bottle#: 3 Worklist Smp#: 3
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094362-003
 Operator ID: PJQ Instrument ID: HP5973U
 Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 23-Oct-2020 12:34:33 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1651

First Level Reviewer: quirkp

Date: 23-Oct-2020 12:25:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	3.058	3.054	0.004	93	150492	2.00	1.99	
3 1,4-Dioxane	88	3.102	3.098	0.004	91	16077	0.2000	0.2031	
* 2 1,4-Dichlorobenzene-d4	152	6.134	6.130	0.004	95	621185	4.00	4.00	

QC Flag Legend

Processing Flags

Reagents:

MB_1,4SIM_WRK_00105

Amount Added: 1.00

Units: mL

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Report Date: 23-Oct-2020 12:34:33

Chrom Revision: 2.3 14-Oct-2020 14:51:38

Euofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158828.D

Injection Date: 22-Oct-2020 19:16:30

Instrument ID: HP5973U

Operator ID: PJQ

Lims ID: IC SIM .2

Worklist Smp#: 3

Client ID:

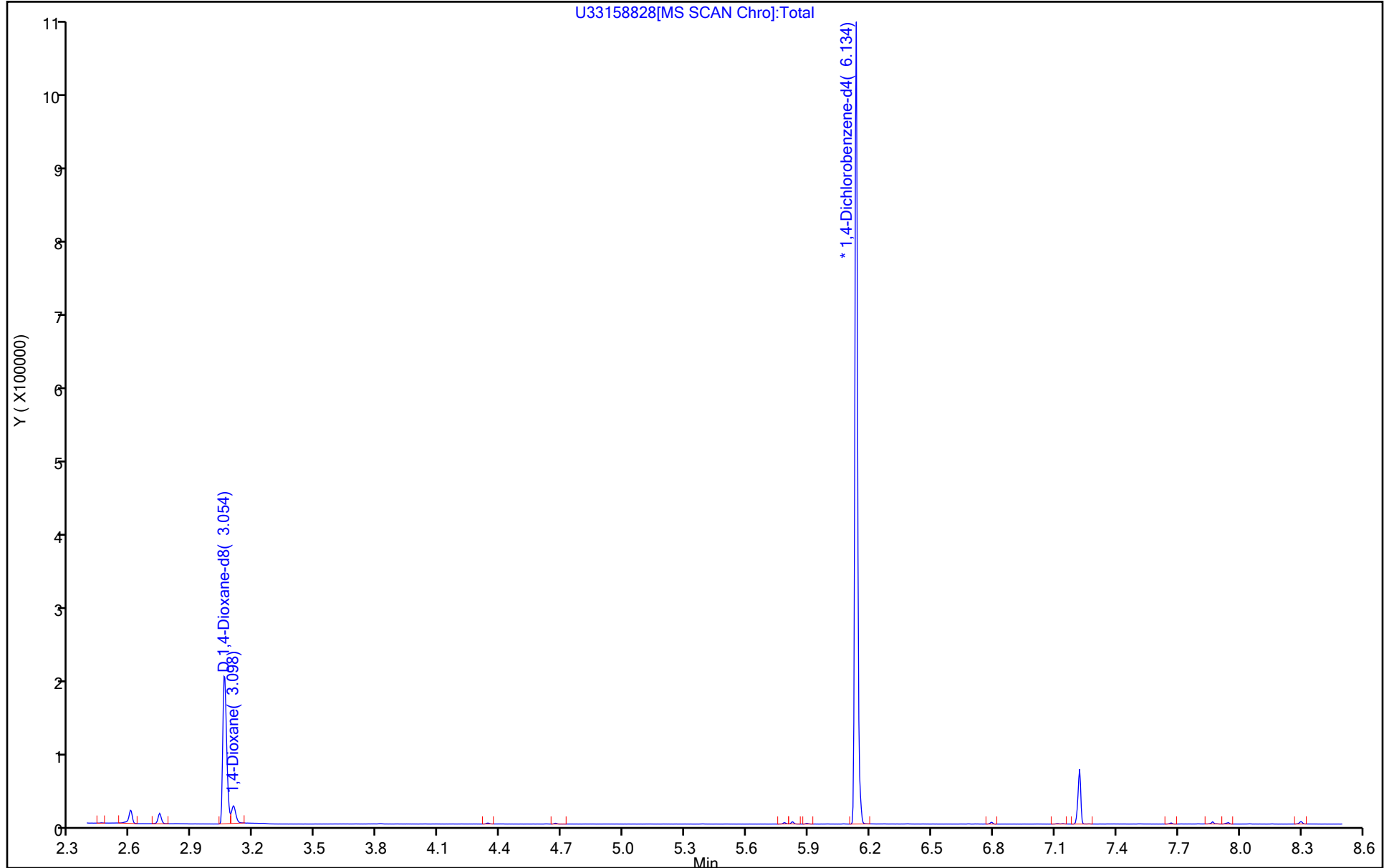
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 3

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158829.D
 Lims ID: IC SIM .4
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 22-Oct-2020 19:39:30 ALS Bottle#: 4 Worklist Smp#: 4
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094362-004
 Operator ID: PJQ Instrument ID: HP5973U
 Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 23-Oct-2020 12:34:34 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1651

First Level Reviewer: quirkp

Date: 23-Oct-2020 12:25:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	3.049	3.054	-0.005	95	314919	4.00	4.05	
3 1,4-Dioxane	88	3.094	3.098	-0.004	94	33188	0.4000	0.4007	
* 2 1,4-Dichlorobenzene-d4	152	6.130	6.130	0.000	96	638411	4.00	4.00	

QC Flag Legend

Processing Flags

Reagents:

MB_1,4SIM_WRK_00106

Amount Added: 1.00

Units: mL

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158829.D

Injection Date: 22-Oct-2020 19:39:30

Instrument ID: HP5973U

Operator ID: PJQ

Lims ID: IC SIM .4

Worklist Smp#: 4

Client ID:

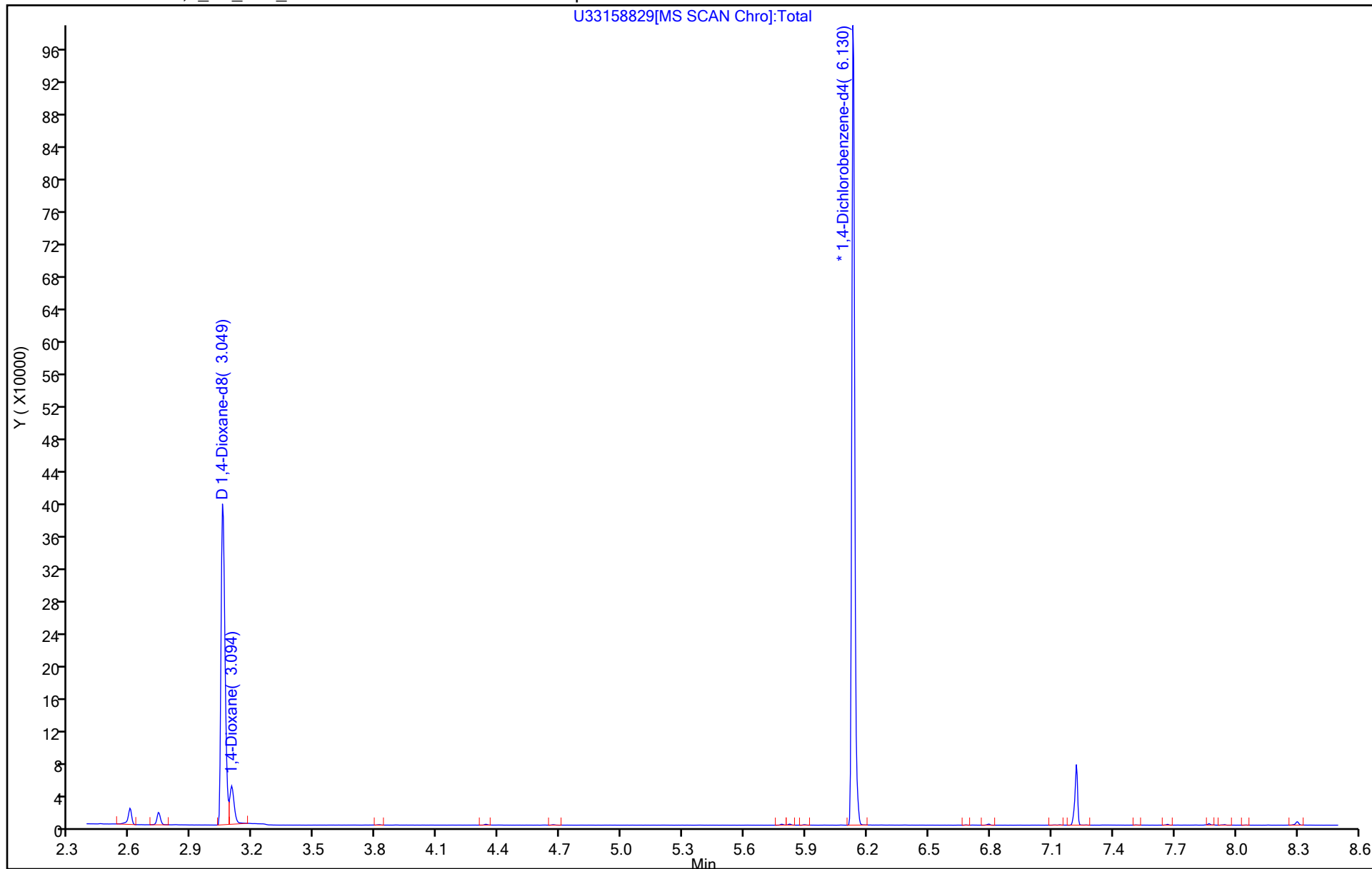
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 4

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158830.D
 Lims ID: ICIS SIM .6
 Client ID:
 Sample Type: ICIS Calib Level: 3
 Inject. Date: 22-Oct-2020 20:03:30 ALS Bottle#: 5 Worklist Smp#: 5
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094362-005
 Operator ID: PJQ Instrument ID: HP5973U
 Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 23-Oct-2020 12:34:34 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1651

First Level Reviewer: quirkp

Date: 23-Oct-2020 12:24:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	3.054	3.054	0.000	94	491745	6.00	5.97	
3 1,4-Dioxane	88	3.098	3.098	0.000	93	51186	0.6000	0.5936	
* 2 1,4-Dichlorobenzene-d4	152	6.130	6.130	0.000	96	676810	4.00	4.00	

QC Flag Legend

Processing Flags

Reagents:

MB_1,4SIM_WRK_00104

Amount Added: 1.00

Units: mL

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158830.D

Injection Date: 22-Oct-2020 20:03:30

Instrument ID: HP5973U

Operator ID: PJQ

Lims ID: ICIS SIM .6

Worklist Smp#: 5

Client ID:

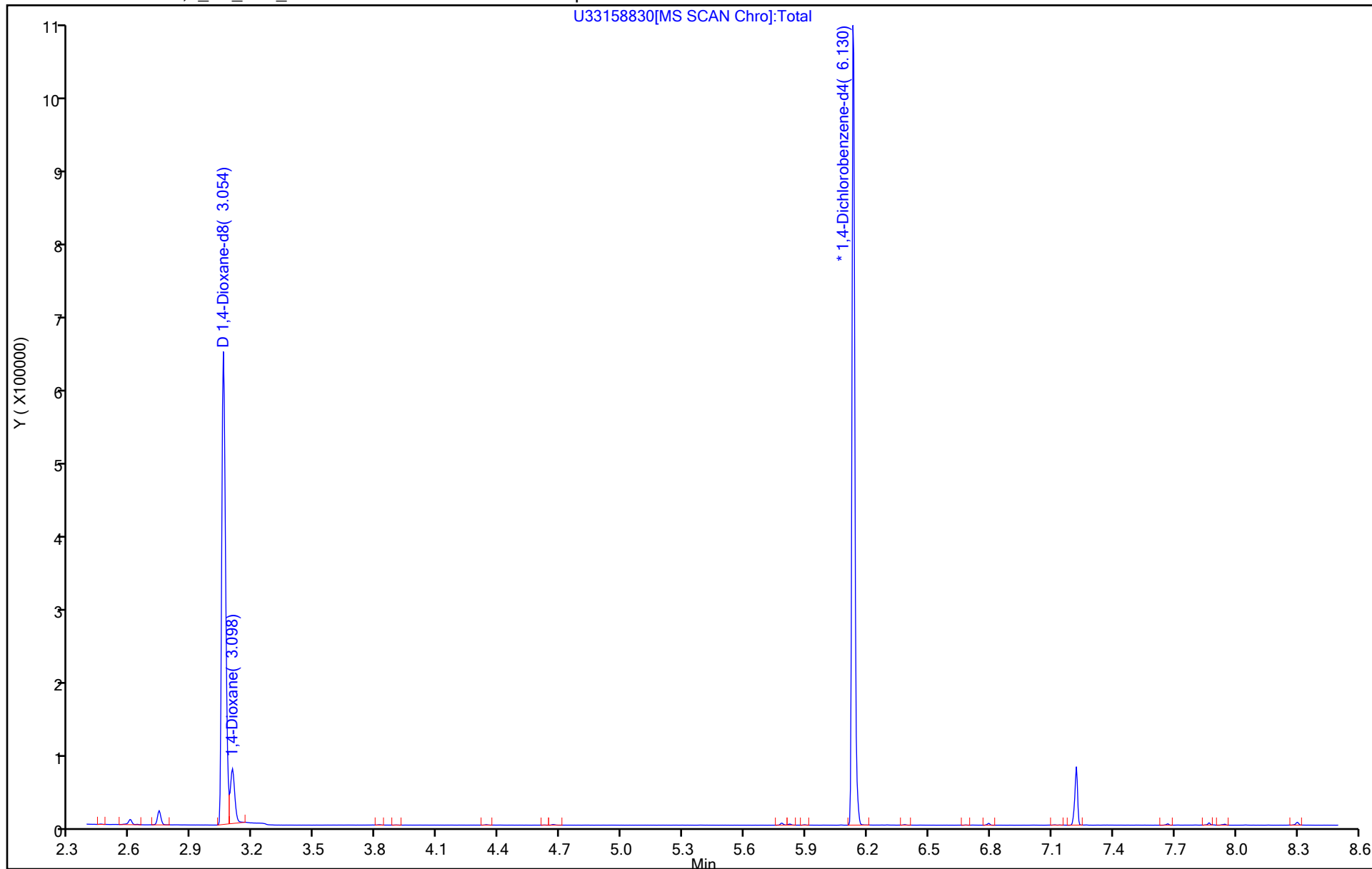
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 5

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158831.D
 Lims ID: IC SIM .8
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 22-Oct-2020 20:26:30 ALS Bottle#: 6 Worklist Smp#: 6
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094362-006
 Operator ID: PJQ Instrument ID: HP5973U
 Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 23-Oct-2020 12:34:35 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1651

First Level Reviewer: quirkp

Date: 23-Oct-2020 12:25:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	3.053	3.054	-0.001	96	642261	8.00	8.06	
3 1,4-Dioxane	88	3.098	3.098	0.000	92	67293	0.8000	0.7967	
* 2 1,4-Dichlorobenzene-d4	152	6.134	6.130	0.004	95	654789	4.00	4.00	

QC Flag Legend

Processing Flags

Reagents:

MB_1,4SIM_WRK_00107

Amount Added: 1.00

Units: mL

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158831.D

Injection Date: 22-Oct-2020 20:26:30

Instrument ID: HP5973U

Operator ID: PJQ

Lims ID: IC SIM .8

Worklist Smp#: 6

Client ID:

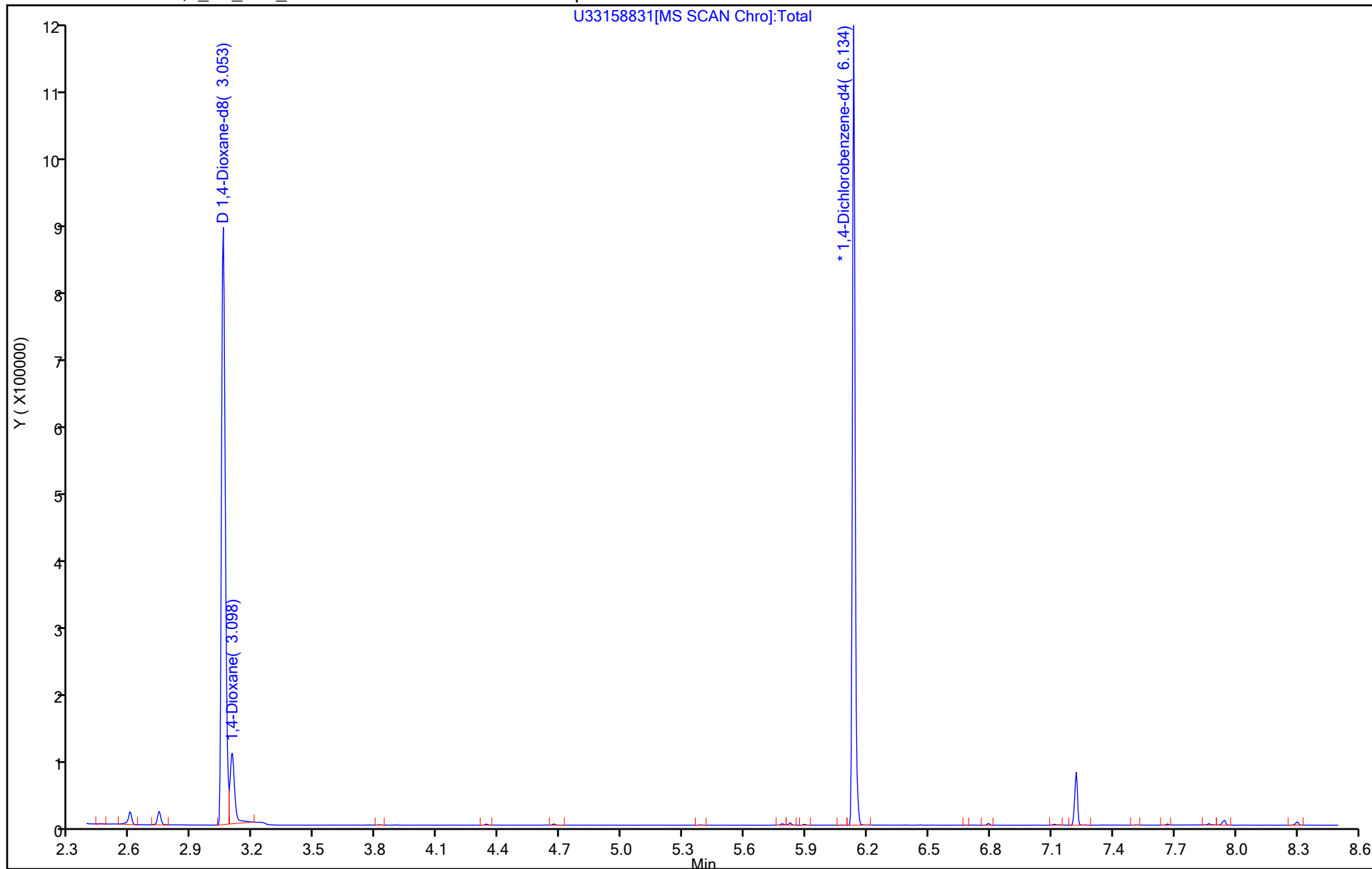
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 6

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158832.D
 Lims ID: IC SIM 1.0
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 22-Oct-2020 20:50:30 ALS Bottle#: 7 Worklist Smp#: 7
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094362-007
 Operator ID: PJQ Instrument ID: HP5973U
 Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 23-Oct-2020 12:34:35 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1651

First Level Reviewer: quirkp

Date: 23-Oct-2020 12:25:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	3.057	3.054	0.003	94	831844	10.0	10.1	
3 1,4-Dioxane	88	3.102	3.098	0.004	91	87289	1.00	1.00	
* 2 1,4-Dichlorobenzene-d4	152	6.130	6.130	0.000	95	679663	4.00	4.00	

QC Flag Legend

Processing Flags

Reagents:

MB_1,4SIM_WRK_00108

Amount Added: 1.00

Units: mL

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158832.D

Injection Date: 22-Oct-2020 20:50:30

Instrument ID: HP5973U

Operator ID: PJQ

Lims ID: IC SIM 1.0

Worklist Smp#: 7

Client ID:

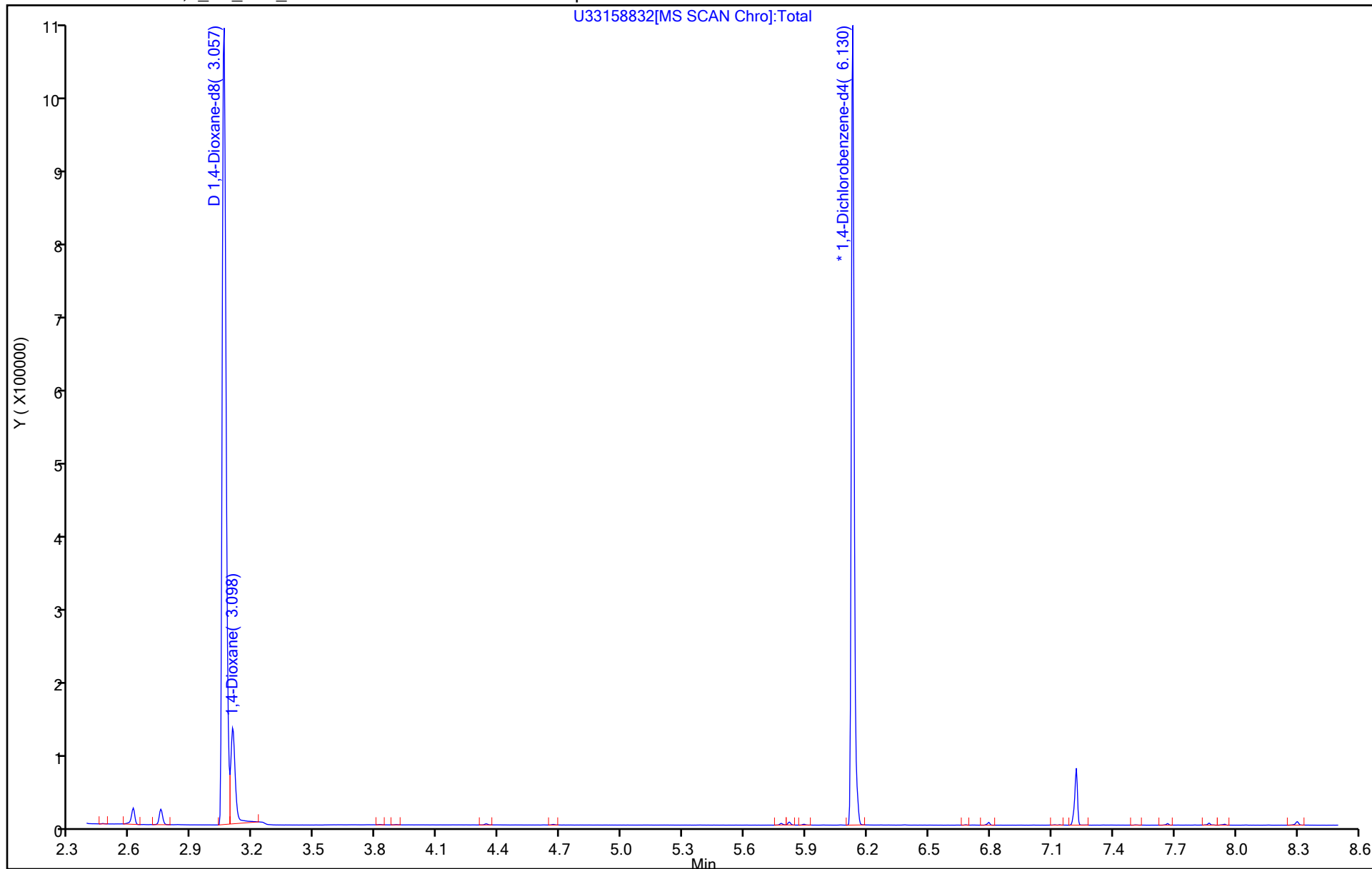
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 7

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Lims ID: IC SIM 1.2
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 22-Oct-2020 21:13:30 ALS Bottle#: 8 Worklist Smp#: 8
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094362-008
 Operator ID: PJQ Instrument ID: HP5973U
 Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 23-Oct-2020 12:34:35 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1651

First Level Reviewer: quirkp

Date: 23-Oct-2020 12:25:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	3.054	3.054	0.000	94	953326	12.0	11.8	
3 1,4-Dioxane	88	3.094	3.098	-0.004	93	100344	1.20	1.20	
* 2 1,4-Dichlorobenzene-d4	152	6.134	6.130	0.004	94	663681	4.00	4.00	

QC Flag Legend

Processing Flags

Reagents:

MB_1,4SIM_WRK_00109

Amount Added: 1.00

Units: mL

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D

Injection Date: 22-Oct-2020 21:13:30

Instrument ID: HP5973U

Operator ID: PJQ

Lims ID: IC SIM 1.2

Worklist Smp#: 8

Client ID:

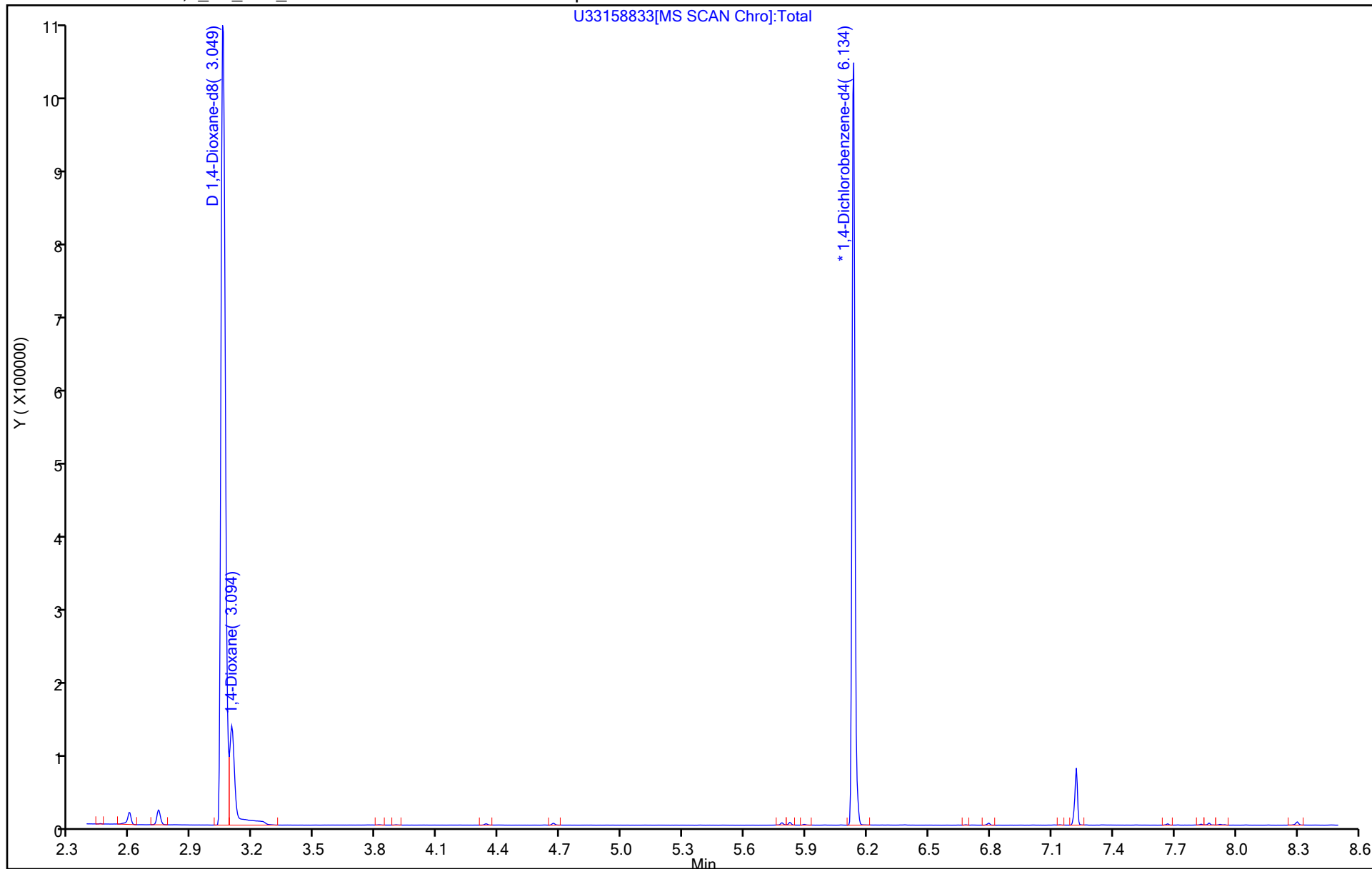
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 8

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
SDG No.: _____
Lab Sample ID: ICV 480-555321/9 Calibration Date: 10/22/2020 21:36
Instrument ID: HP5973U Calib Start Date: 10/22/2020 19:16
GC Column: RXI-5Sil MS(0.5 ID: 0.25(mm) Calib End Date: 10/22/2020 21:13
Lab File ID: U33158834.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	AveID	1.052	1.028	0.0100	586	600	-2.3	20.0
1,4-Dioxane-d8	Ave	0.4868	0.5109	0.0100	6300	6000	4.9	20.0

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158834.D
 Lims ID: ICV SIM
 Client ID:
 Sample Type: ICV
 Inject. Date: 22-Oct-2020 21:36:30 ALS Bottle#: 9 Worklist Smp#: 9
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094362-009
 Operator ID: PJQ Instrument ID: HP5973U
 Sublist:
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 23-Oct-2020 12:36:05 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1651

First Level Reviewer: quirkp

Date: 23-Oct-2020 12:35:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	3.058	3.054	0.004	94	584392	6.00	6.30	
3 1,4-Dioxane	88	3.098	3.098	0.000	95	60093	0.6000	0.5864	
* 2 1,4-Dichlorobenzene-d4	152	6.134	6.130	0.004	95	762603	4.00	4.00	

QC Flag Legend

Processing Flags

Reagents:

MB_SIMSS_WRK_00015

Amount Added: 1.00

Units: mL

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Report Date: 23-Oct-2020 12:36:06

Chrom Revision: 2.3 14-Oct-2020 14:51:38

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158834.D

Injection Date: 22-Oct-2020 21:36:30

Instrument ID: HP5973U

Operator ID: PJQ

Lims ID: ICV SIM

Worklist Smp#: 9

Client ID:

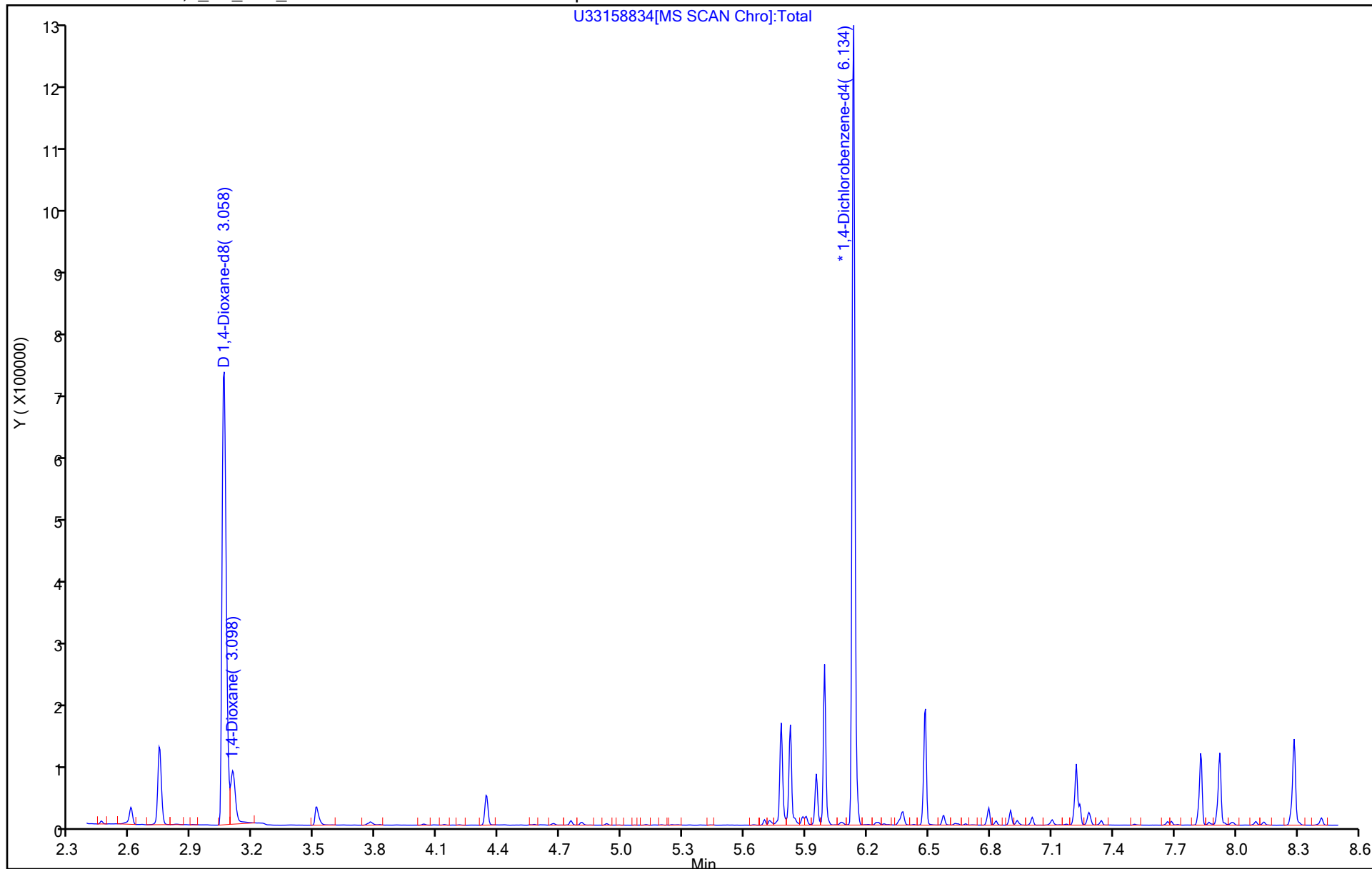
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 9

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
SDG No.: _____
Lab Sample ID: CCVIS 480-556213/3 Calibration Date: 10/28/2020 13:11
Instrument ID: HP5973U Calib Start Date: 10/22/2020 19:16
GC Column: RXI-5Sil MS(0.5 ID: 0.25(mm) Calib End Date: 10/22/2020 21:13
Lab File ID: U33159011.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	AveID	1.052	1.043	0.0100	595	600	-0.9	20.0
1,4-Dioxane-d8	Ave	0.4868	0.4656	0.0100	5740	6000	-4.4	20.0

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159011.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 28-Oct-2020 13:11:30 ALS Bottle#: 3 Worklist Smp#: 3
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094517-003
 Operator ID: JM Instrument ID: HP5973U
 Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 29-Oct-2020 15:43:28 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1674

First Level Reviewer: marshallj

Date: 29-Oct-2020 15:36:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	3.045	3.045	0.000	96	386562	6.00	5.74	
3 1,4-Dioxane	88	3.090	3.090	0.000	92	40310	0.6000	0.5947	
* 2 1,4-Dichlorobenzene-d4	152	6.126	6.126	0.000	95	553451	4.00	4.00	

QC Flag Legend

Processing Flags

Reagents:

MB_1,4SIM_WRK_00104

Amount Added: 1.00

Units: mL

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159011.D

Injection Date: 28-Oct-2020 13:11:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: CCVIS

Worklist Smp#: 3

Client ID:

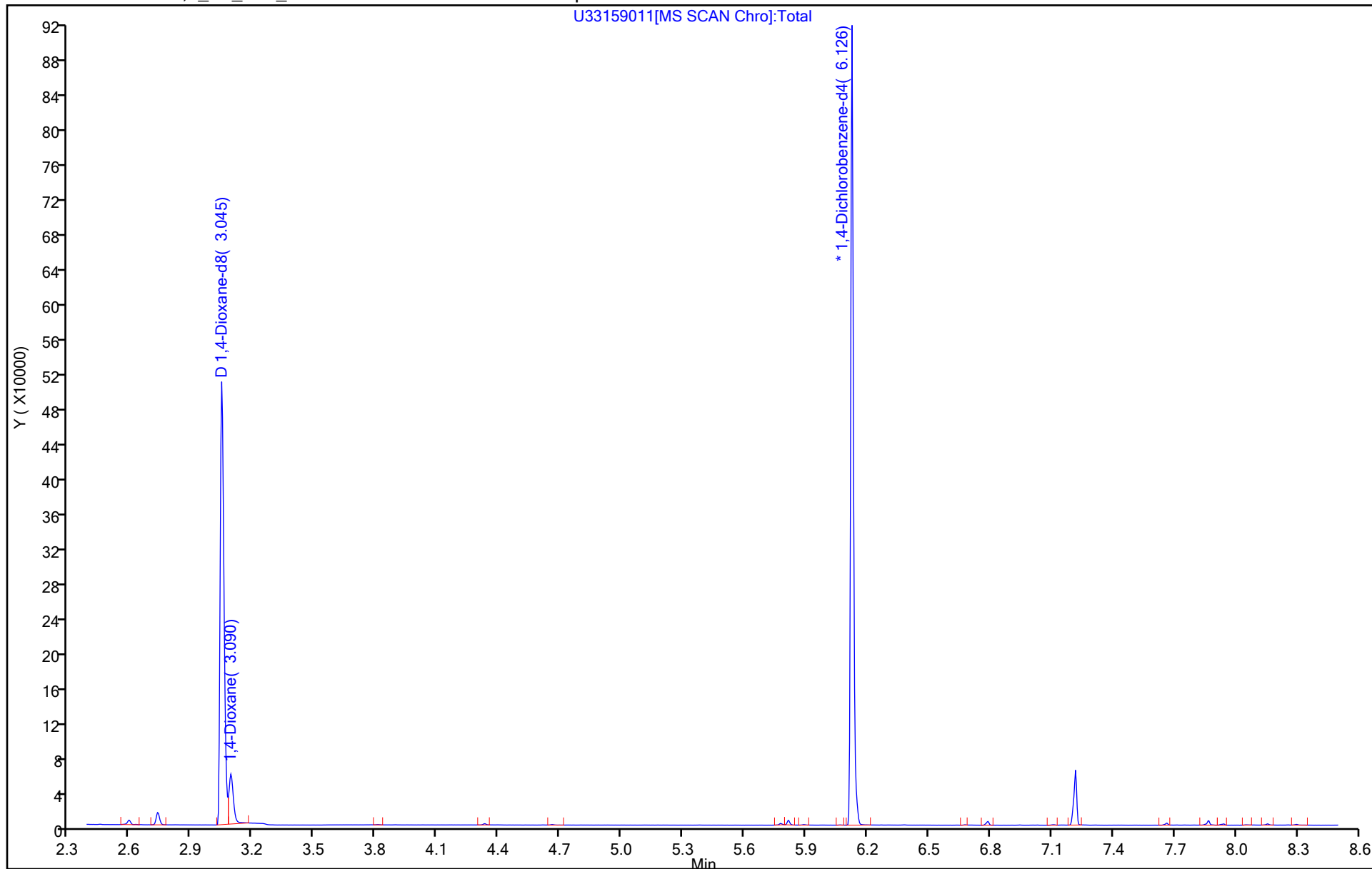
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 3

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
SDG No.: _____
Lab Sample ID: CCVIS 480-556258/3 Calibration Date: 10/29/2020 01:09
Instrument ID: HP5973U Calib Start Date: 10/22/2020 19:16
GC Column: RXI-5Sil MS(0.5 ID: 0.25(mm) Calib End Date: 10/22/2020 21:13
Lab File ID: U33159041.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	AveID	1.052	1.050	0.0100	599	600	-0.2	20.0
1,4-Dioxane-d8	Ave	0.4868	0.4684	0.0100	5770	6000	-3.8	20.0

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\U33159041.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 29-Oct-2020 01:09:30 ALS Bottle#: 33 Worklist Smp#: 3
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094526-003
 Operator ID: JM Instrument ID: HP5973U
 Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 29-Oct-2020 15:44:46 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1674

First Level Reviewer: marshallj

Date: 29-Oct-2020 15:40:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	3.045	3.045	0.000	97	420362	6.00	5.77	
3 1,4-Dioxane	88	3.090	3.090	0.000	93	44144	0.6000	0.5989	
* 2 1,4-Dichlorobenzene-d4	152	6.126	6.126	0.000	95	598316	4.00	4.00	

QC Flag Legend

Processing Flags

Reagents:

MB_1,4SIM_WRK_00104

Amount Added: 1.00

Units: mL

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\U33159041.D

Injection Date: 29-Oct-2020 01:09:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: CCVIS

Worklist Smp#: 3

Client ID:

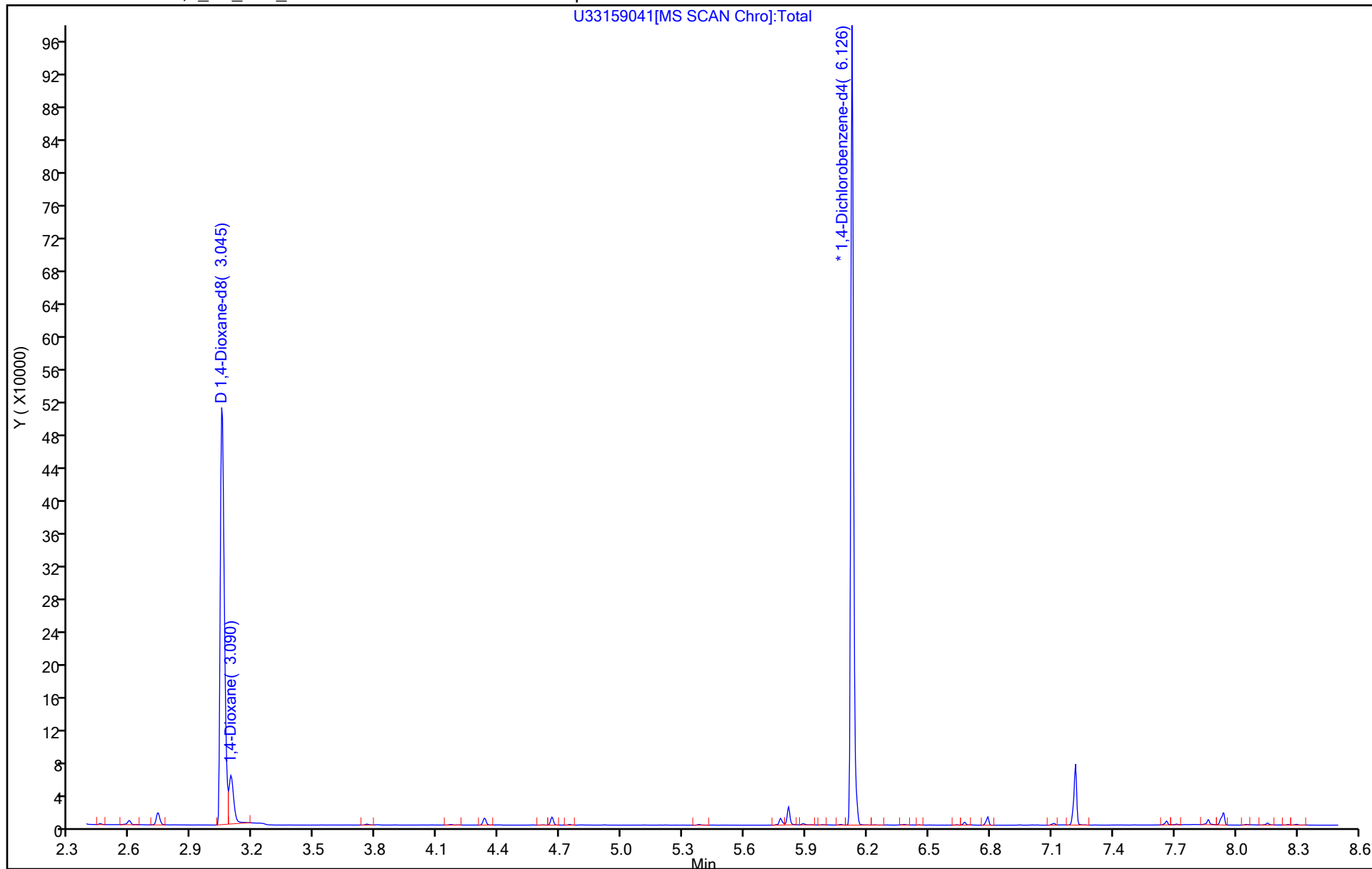
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 33

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
SDG No.: _____
Lab Sample ID: CCVIS 480-556636/3 Calibration Date: 10/30/2020 10:42
Instrument ID: HP5973U Calib Start Date: 10/22/2020 19:16
GC Column: RXI-5Sil MS(0.5 ID: 0.25(mm) Calib End Date: 10/22/2020 21:13
Lab File ID: U33159088.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	AveID	1.052	1.048	0.0100	598	600	-0.4	20.0
1,4-Dioxane-d8	Ave	0.4868	0.4587	0.0100	5650	6000	-5.8	20.0

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201030-94580.b\U33159088.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 30-Oct-2020 10:42:30 ALS Bottle#: 3 Worklist Smp#: 3
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094580-003
 Operator ID: JM Instrument ID: HP5973U
 Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201030-94580.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 30-Oct-2020 13:03:30 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1635

First Level Reviewer: marshallj

Date: 30-Oct-2020 13:03:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	3.013	3.013	0.000	96	390106	6.00	5.65	
3 1,4-Dioxane	88	3.058	3.058	0.000	93	40881	0.6000	0.5976	
* 2 1,4-Dichlorobenzene-d4	152	6.101	6.101	0.000	95	566946	4.00	4.00	

QC Flag Legend

Processing Flags

Reagents:

MB_1,4SIM_WRK_00104

Amount Added: 1.00

Units: mL

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201030-94580.b\U33159088.D

Injection Date: 30-Oct-2020 10:42:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: CCVIS

Worklist Smp#: 3

Client ID:

Injection Vol: 1.0 ul

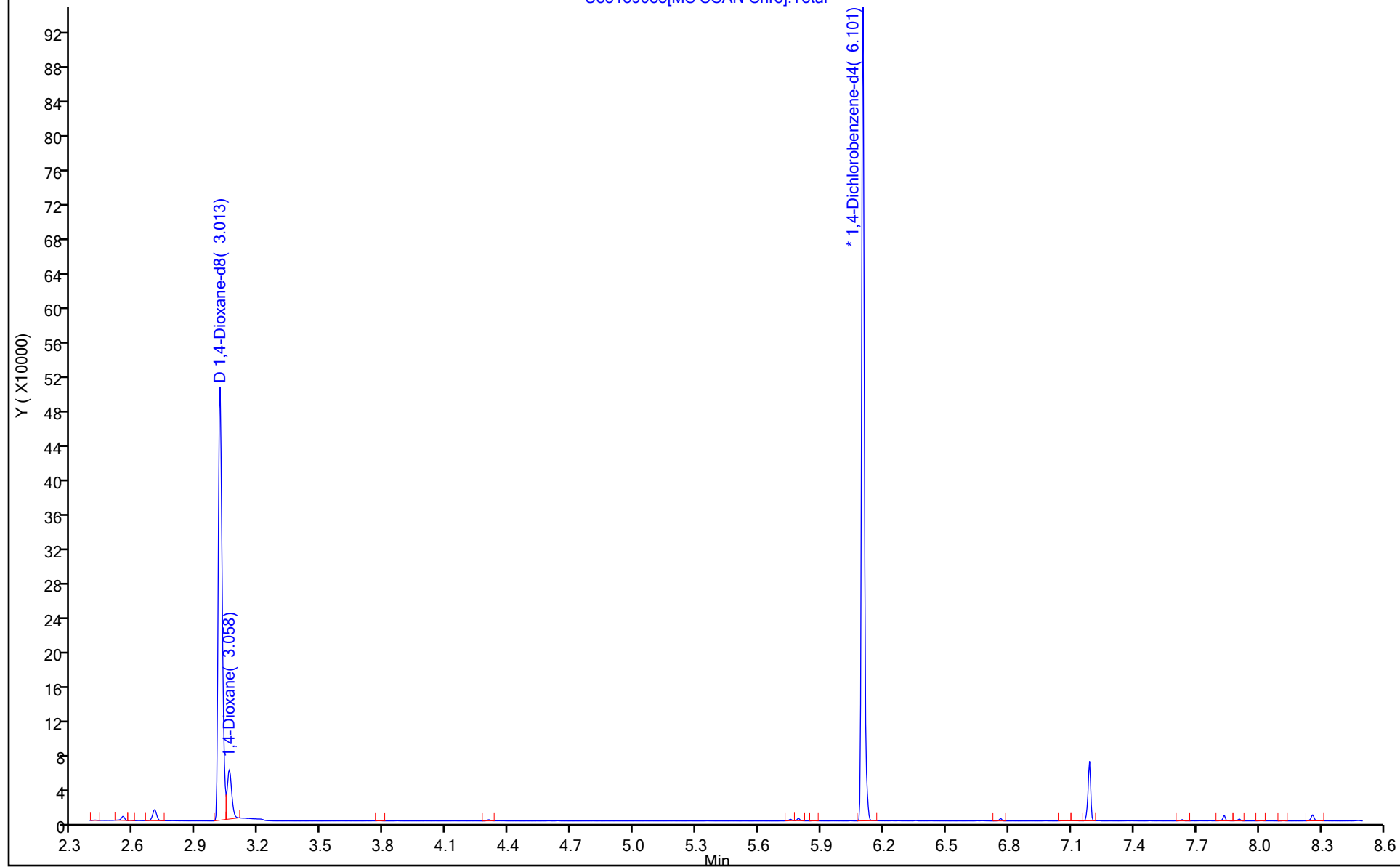
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

U33159088[MS SCAN Chro]:Total



Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158827.D
 Lims ID: DFTPP
 Client ID:
 Sample Type: DFTPP
 Inject. Date: 22-Oct-2020 18:48:30 ALS Bottle#: 2 Worklist Smp#: 2
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094362-002
 Operator ID: PJQ Instrument ID: HP5973U
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 23-Oct-2020 12:36:05 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: Deconvolution ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1651

First Level Reviewer: quirkp

Date: 22-Oct-2020 19:11:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
* 2 1,4-Dichlorobenzene-d4	152		6.130				4.00	ND	
4 DFTPP									
7 4,4'-DDE	246		10.994					ND	
5 4,4'-DDD	235	11.517	11.517	0.000	94	4659			NR
6 4,4'-DDT	235	11.817	11.817	0.000	99	1172368	NR		NR

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

MB_DFTPP_WRK_00382

Amount Added: 1.00

Units: mL

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158827.D

Injection Date: 22-Oct-2020 18:48:30

Instrument ID: HP5973U

Lims ID: DFTPP

Client ID:

Operator ID: PJJ

ALS Bottle#: 2 Worklist Smp#: 2

Injection Vol: 1.0 ul

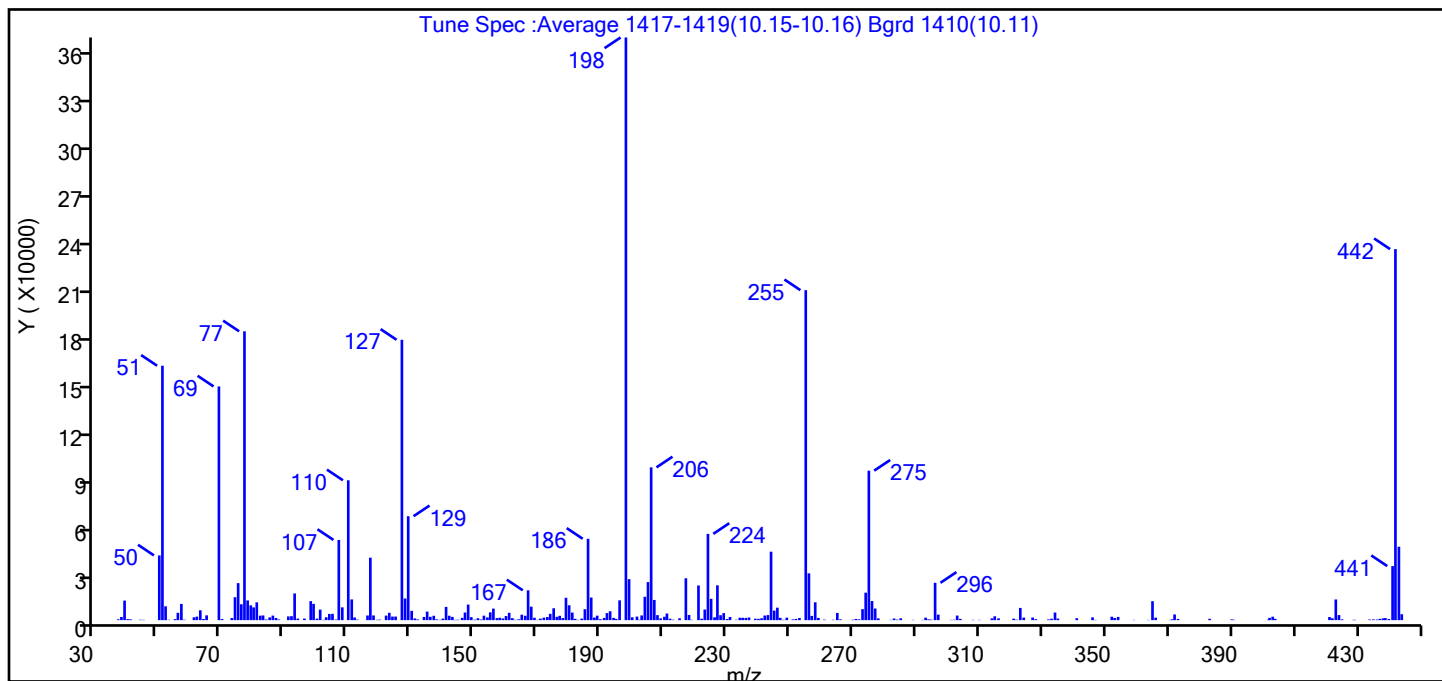
Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

Tune Method: DFTPP Method 8270D, BP 198

4 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	base peak, or >50% of 442	100.0 (157.0)
51	10-80% of the base peak	43.7
68	<2% of mass 69	0.0 (0.0)
69	Present	40.1
70	<2% of mass 69	0.2 (0.5)
127	10-80% of the base peak	48.1
197	<2% of mass 198	0.0
199	5-9% of mass 198	7.0
275	10-60% of the base peak	25.7
365	>1% of mass 198	3.3
441	present but <24% of mass 442	9.3 (14.6)
442	base peak, or >50% of 198	63.7
443	15-24% of mass 442	12.6 (19.8)

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158827.D\1,4_Dx_SIM_HP5973U.rsltspe
Injection Date: 22-Oct-2020 18:48:30
Spectrum: Tune Spec :Average 1417-1419(10.15-10.16) Bgrd 1410(10.11)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 273

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	540	129.00	65152	200.00	1783	285.00	1156
38.00	1966	130.00	5828	202.00	2234	289.00	179
39.00	12256	131.00	1066	202.00	206	292.00	167
40.00	649	132.00	447	203.00	2953	293.00	1542
41.00	505	134.00	1999	204.00	14638	294.00	487
44.00	260	135.00	5348	205.00	23880	295.00	351
45.00	202	136.00	2115	206.00	95768	296.00	23416
50.00	40576	137.00	2735	207.00	12658	297.00	3453
51.00	159488	138.00	484	208.00	3153	301.00	175
52.00	8669	139.00	199	209.00	1099	302.00	275
53.00	214	140.00	976	210.00	2122	303.00	2869
55.00	664	141.00	8305	211.00	4168	304.00	763
56.00	4615	142.00	2753	212.00	890	308.00	192
57.00	10171	143.00	2027	213.00	272	310.00	187
58.00	272	144.00	205	215.00	1161	314.00	1103
61.00	1777	145.00	269	217.00	26264	315.00	2419
62.00	2217	146.00	1433	218.00	3241	316.00	1132
63.00	6179	147.00	4780	219.00	196	321.00	942
64.00	728	148.00	9765	221.00	21752	322.00	289
65.00	3005	149.00	1864	222.00	885	323.00	7656
69.00	146496	150.00	328	223.00	6636	324.00	1606
70.00	667	151.00	1204	224.00	54080	327.00	1646
73.00	1327	152.00	407	225.00	13366	328.00	624
74.00	14384	153.00	2802	226.00	1791	332.00	470
75.00	23208	154.00	1740	227.00	21840	333.00	899
76.00	9950	155.00	4904	228.00	3100	334.00	4780
77.00	181056	156.00	7246	229.00	4431	335.00	994
78.00	12348	157.00	1288	230.00	694	341.00	1220
79.00	9267	158.00	1496	231.00	1997	346.00	1750
80.00	7990	159.00	1070	233.00	247	347.00	168
81.00	11146	160.00	2583	234.00	1500	352.00	2154
82.00	2817	161.00	4611	235.00	1470	353.00	1351
83.00	2939	162.00	1252	236.00	1389	354.00	2028

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158827.D\1_4_Dx_SIM_HP5973U.rslt\spe

Injection Date: 22-Oct-2020 18:48:30

Spectrum: Tune Spec :Average 1417-1419(10.15-10.16) Bgrd 1410(10.11)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 273

m/z	Y	m/z	Y	m/z	Y	m/z	Y
84.00	440	163.00	232	237.00	1672	359.00	172
85.00	1717	164.00	532	239.00	922	364.00	173
86.00	2830	165.00	3417	240.00	824	365.00	11881
87.00	1379	166.00	2732	241.00	1182	366.00	1548
88.00	385	167.00	18696	242.00	2879	371.00	179
91.00	2334	168.00	8426	243.00	3179	371.00	516
92.00	2494	169.00	1506	244.00	42912	372.00	3578
93.00	16744	170.00	222	245.00	5982	373.00	767
94.00	967	171.00	973	246.00	7815	383.00	860
96.00	988	172.00	1592	247.00	1452	390.00	466
98.00	11915	173.00	1951	248.00	225	391.00	217
99.00	10213	174.00	3965	249.00	1548	402.00	286
100.00	976	175.00	7443	251.00	452	402.00	1436
101.00	6608	176.00	2080	252.00	751	403.00	2158
102.00	169	177.00	2711	253.00	1355	404.00	804
103.00	1805	178.00	1312	255.00	206848	421.00	1973
104.00	3889	179.00	14016	256.00	29352	422.00	1191
105.00	3945	180.00	9312	257.00	2671	423.00	12961
106.00	387	181.00	4747	258.00	11193	424.00	3166
107.00	50272	182.00	845	259.00	1404	425.00	502
108.00	8024	183.00	185	261.00	326	429.00	183
110.00	87672	184.00	999	264.00	257	429.00	175
111.00	12997	185.00	6841	265.00	4519	434.00	404
112.00	1676	186.00	51000	266.00	509	435.00	488
113.00	330	187.00	14158	270.00	298	436.00	410
116.00	2916	188.00	1621	271.00	748	437.00	823
117.00	39152	189.00	2807	272.00	518	438.00	1122
118.00	2951	190.00	596	273.00	6894	439.00	1296
119.00	228	191.00	1403	274.00	17216	440.00	736
120.00	334	192.00	4420	275.00	93704	441.00	33888
122.00	2841	193.00	5581	276.00	11961	442.00	232576
123.00	4610	194.00	1440	277.00	7280	443.00	46016
124.00	2229	195.00	755	278.00	1102	444.00	3714
125.00	2254	196.00	12424	282.00	185		

Report Date: 23-Oct-2020 12:36:05

Chrom Revision: 2.3 14-Oct-2020 14:51:38

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158827.D\1,4_Dx_SIM_HP5973U.rslt\spe

Injection Date: 22-Oct-2020 18:48:30

Spectrum: Tune Spec :Average 1417-1419(10.15-10.16) Bgrd 1410(10.11)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 273

m/z	Y	m/z	Y	m/z	Y	m/z	Y
127.00	175744	198.00	365248	283.00	1020		
128.00	13570	199.00	25688	284.00	332		

Report Date: 23-Oct-2020 12:36:05

Chrom Revision: 2.3 14-Oct-2020 14:51:38

Euofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158827.D

Injection Date: 22-Oct-2020 18:48:30

Instrument ID: HP5973U

Operator ID: PJQ

Lims ID: DFTPP

Worklist Smp#: 2

Client ID:

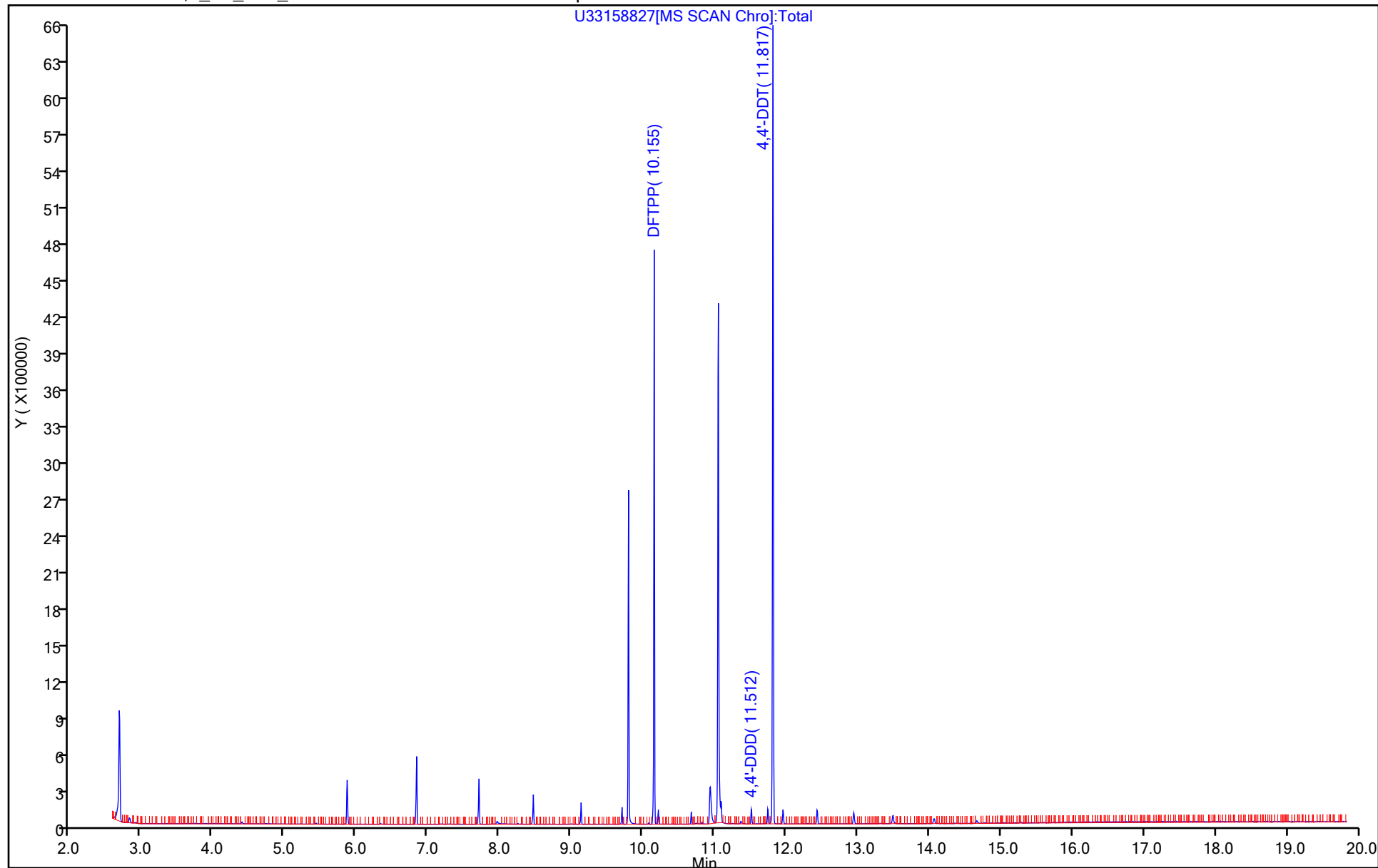
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 2

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158827.D

Injection Date: 22-Oct-2020 18:48:30

Instrument ID: HP5973U

Lims ID: DFTPP

Client ID:

Operator ID: Pjq

ALS Bottle#:

2

Worklist Smp#:

2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

6 4,4'-DDT, Detector: MS SCAN

SW-846 Method

%Breakdown =

$$\left(\frac{\text{Area Breakdown Cpnds}}{\text{Total Area Breakdown Cpnds}} \right) * 100$$

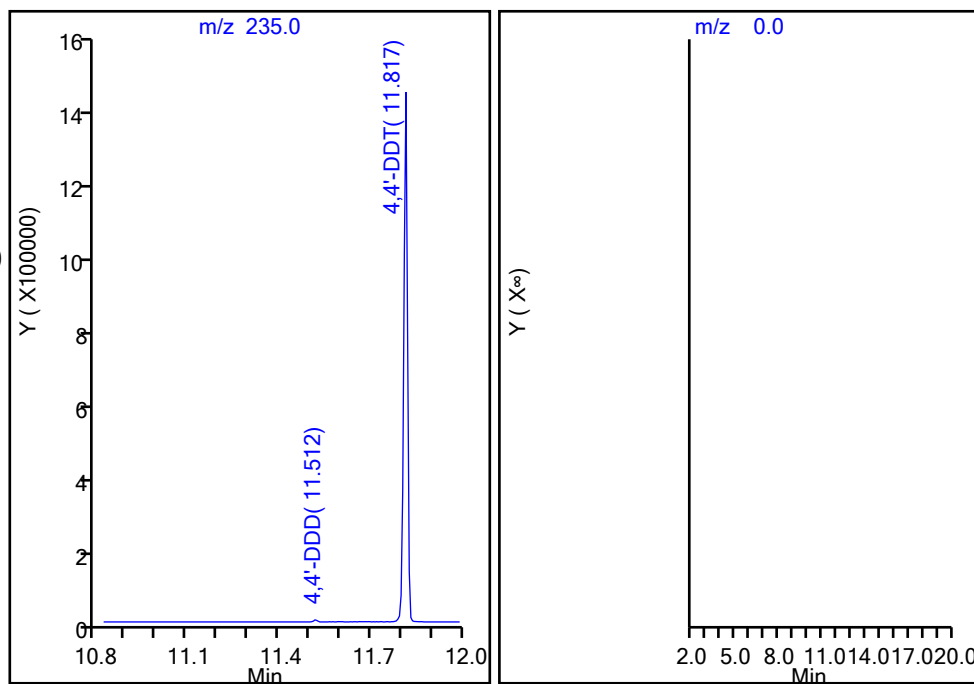
6 4,4'-DDT, Area = 1172368

5 4,4'-DDD, Area = 4659

7 4,4'-DDE, Area = 0

%Breakdown: 0.40%, <= 20.00%

Passed



Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159010.D
 Lims ID: DFTPP
 Client ID:
 Sample Type: DFTPP
 Inject. Date: 28-Oct-2020 12:42:30 ALS Bottle#: 2 Worklist Smp#: 2
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: DFTPP
 Operator ID: JM Instrument ID: HP5973U
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 29-Oct-2020 15:43:27 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: Deconvolution ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1674

First Level Reviewer: marshallj

Date: 28-Oct-2020 13:07:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
* 2 1,4-Dichlorobenzene-d4	152		6.126				4.00	ND	
4 DFTPP									
7 4,4'-DDE	246		10.994					ND	
5 4,4'-DDD	235	11.517	11.517	0.000	94	5227			NR
6 4,4'-DDT	235	11.811	11.811	0.000	98	975797	NR		NR

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

MB_DFTPP_WRK_00382

Amount Added: 1.00

Units: mL

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159010.D

Injection Date: 28-Oct-2020 12:42:30

Instrument ID: HP5973U

Lims ID: DFTPP

Client ID:

Operator ID: JM

ALS Bottle#: 2 Worklist Smp#: 2

Injection Vol: 1.0 ul

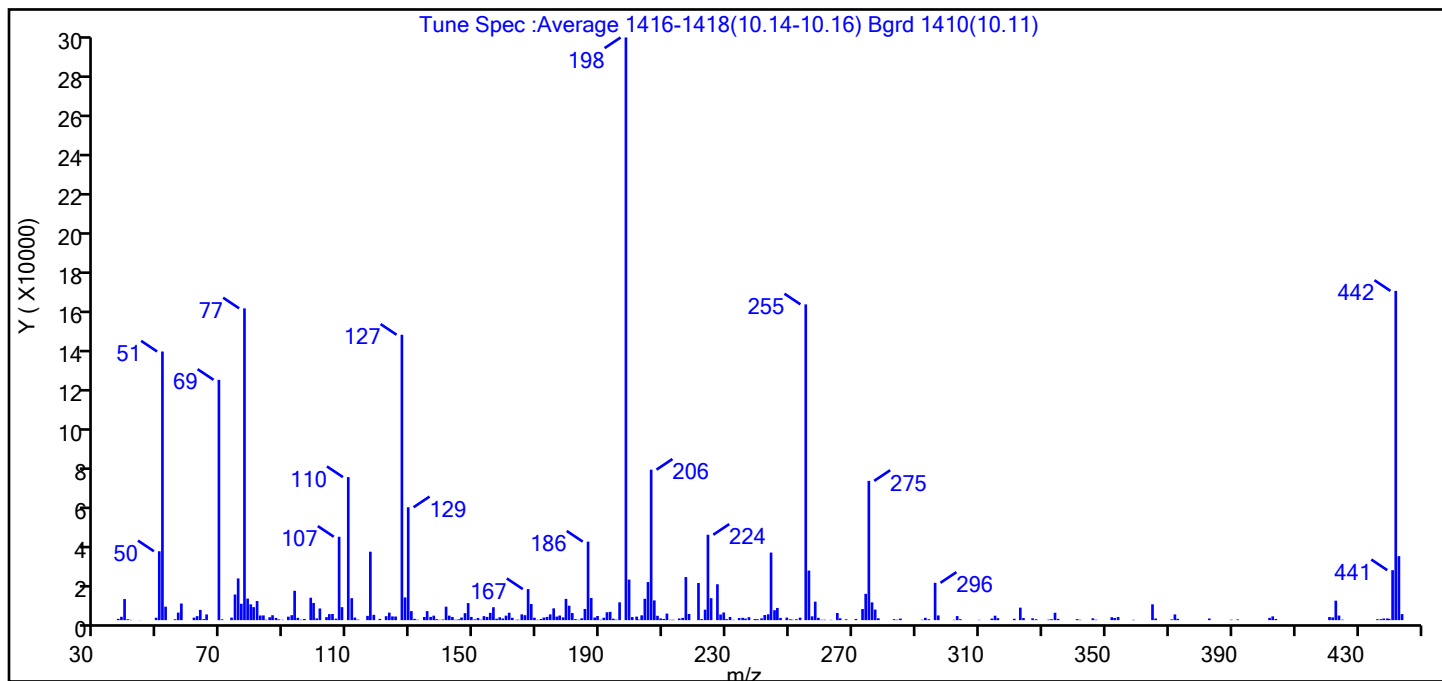
Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

Tune Method: DFTPP Method 8270D, BP 198

4 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	base peak, or >50% of 442	100.0 (177.0)
51	10-80% of the base peak	46.1
68	<2% of mass 69	0.0 (0.0)
69	Present	41.2
70	<2% of mass 69	0.1 (0.3)
127	10-80% of the base peak	49.0
197	<2% of mass 198	0.0
199	5-9% of mass 198	7.0
275	10-60% of the base peak	23.9
365	>1% of mass 198	2.7
441	present but <24% of mass 442	8.6 (15.2)
442	base peak, or >50% of 198	56.5
443	15-24% of mass 442	11.0 (19.4)

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159010.D\1,4_Dx_SIM_HP5973U.rsltspe
Injection Date: 28-Oct-2020 12:42:30
Spectrum: Tune Spec :Average 1416-1418(10.14-10.16) Bgrd 1410(10.11)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 258

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	651	127.00	146112	193.00	4242	273.00	5695
38.00	1704	128.00	11639	194.00	737	274.00	13476
39.00	10795	129.00	57792	195.00	267	275.00	71296
40.00	463	130.00	4620	196.00	9127	276.00	9092
41.00	171	131.00	656	198.00	298304	277.00	5428
44.00	72	132.00	196	199.00	20760	278.00	947
49.00	1241	134.00	1619	200.00	1591	283.00	470
50.00	35264	135.00	4626	201.00	1810	284.00	222
51.00	137536	136.00	1672	202.00	284	285.00	808
52.00	6897	137.00	2289	203.00	2467	292.00	222
55.00	458	138.00	504	204.00	10930	293.00	1185
56.00	3857	139.00	167	205.00	19496	294.00	467
57.00	8518	140.00	335	206.00	77040	296.00	19112
61.00	1294	141.00	6888	207.00	10116	297.00	2415
62.00	2048	142.00	2300	208.00	2232	302.00	191
63.00	5262	143.00	1617	209.00	884	303.00	2087
64.00	532	144.00	234	210.00	623	304.00	491
65.00	2929	145.00	428	211.00	3362	310.00	172
69.00	123024	146.00	1348	212.00	211	314.00	825
70.00	417	147.00	3584	213.00	221	315.00	2275
73.00	1300	148.00	8743	215.00	865	316.00	1006
74.00	13119	149.00	1652	216.00	1156	321.00	683
75.00	21360	150.00	404	217.00	22064	323.00	6395
76.00	8381	151.00	1131	218.00	3173	324.00	1057
77.00	159616	152.00	224	221.00	19024	327.00	950
78.00	11029	153.00	2055	222.00	524	328.00	488
79.00	8095	154.00	1655	223.00	5357	332.00	280
80.00	6655	155.00	3726	224.00	43720	333.00	470
81.00	9779	156.00	6620	225.00	11240	334.00	3788
82.00	2371	157.00	733	227.00	18392	335.00	636
83.00	2417	158.00	1483	228.00	2895	341.00	557
84.00	210	159.00	862	229.00	3933	342.00	204
85.00	1490	160.00	2301	230.00	523	346.00	941

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159010.D\1,4_Dx_SIM_HP5973U.rslt\spe

Injection Date: 28-Oct-2020 12:42:30

Spectrum: Tune Spec :Average 1416-1418(10.14-10.16) Bgrd 1410(10.11)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 258

m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	2509	161.00	3792	231.00	1630	347.00	229
87.00	1131	162.00	1192	232.00	166	352.00	1503
88.00	380	163.00	174	234.00	1076	353.00	1099
89.00	169	164.00	208	235.00	1192	354.00	1588
91.00	1774	165.00	2953	236.00	816	359.00	190
92.00	2533	166.00	2546	237.00	1531	365.00	8102
93.00	15037	167.00	15899	239.00	563	366.00	832
94.00	1172	168.00	8261	240.00	463	371.00	383
95.00	221	169.00	1220	241.00	909	372.00	2941
96.00	601	170.00	201	242.00	2616	373.00	679
98.00	11456	171.00	624	243.00	2996	383.00	840
99.00	8798	172.00	1343	244.00	34600	390.00	235
100.00	884	173.00	1661	245.00	5089	392.00	364
101.00	5977	174.00	2951	246.00	6247	402.00	1171
103.00	1537	175.00	6052	247.00	1114	403.00	1936
104.00	3072	176.00	1805	249.00	1306	404.00	583
105.00	3152	177.00	2354	250.00	452	421.00	1614
106.00	748	178.00	1425	251.00	187	422.00	1422
107.00	42696	179.00	10888	252.00	478	423.00	9978
108.00	6650	180.00	7376	253.00	1282	424.00	2351
110.00	73232	181.00	3634	255.00	161664	425.00	237
111.00	11255	182.00	533	256.00	25384	436.00	465
112.00	1333	183.00	218	257.00	1950	437.00	504
113.00	273	184.00	969	258.00	9482	438.00	846
116.00	2188	185.00	5728	259.00	1176	439.00	846
117.00	35040	186.00	40200	260.00	191	440.00	654
118.00	2715	187.00	11359	261.00	211	441.00	25584
120.00	636	188.00	1337	263.00	167	442.00	168576
122.00	2034	189.00	2119	265.00	3662	443.00	32776
123.00	3851	190.00	226	266.00	936	444.00	3096
124.00	1908	191.00	1232	268.00	435		
125.00	1854	192.00	4038	271.00	602		

Report Date: 29-Oct-2020 15:43:28

Chrom Revision: 2.3 14-Oct-2020 14:51:38

Euofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159010.D

Injection Date: 28-Oct-2020 12:42:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: DFTPP

Worklist Smp#: 2

Client ID:

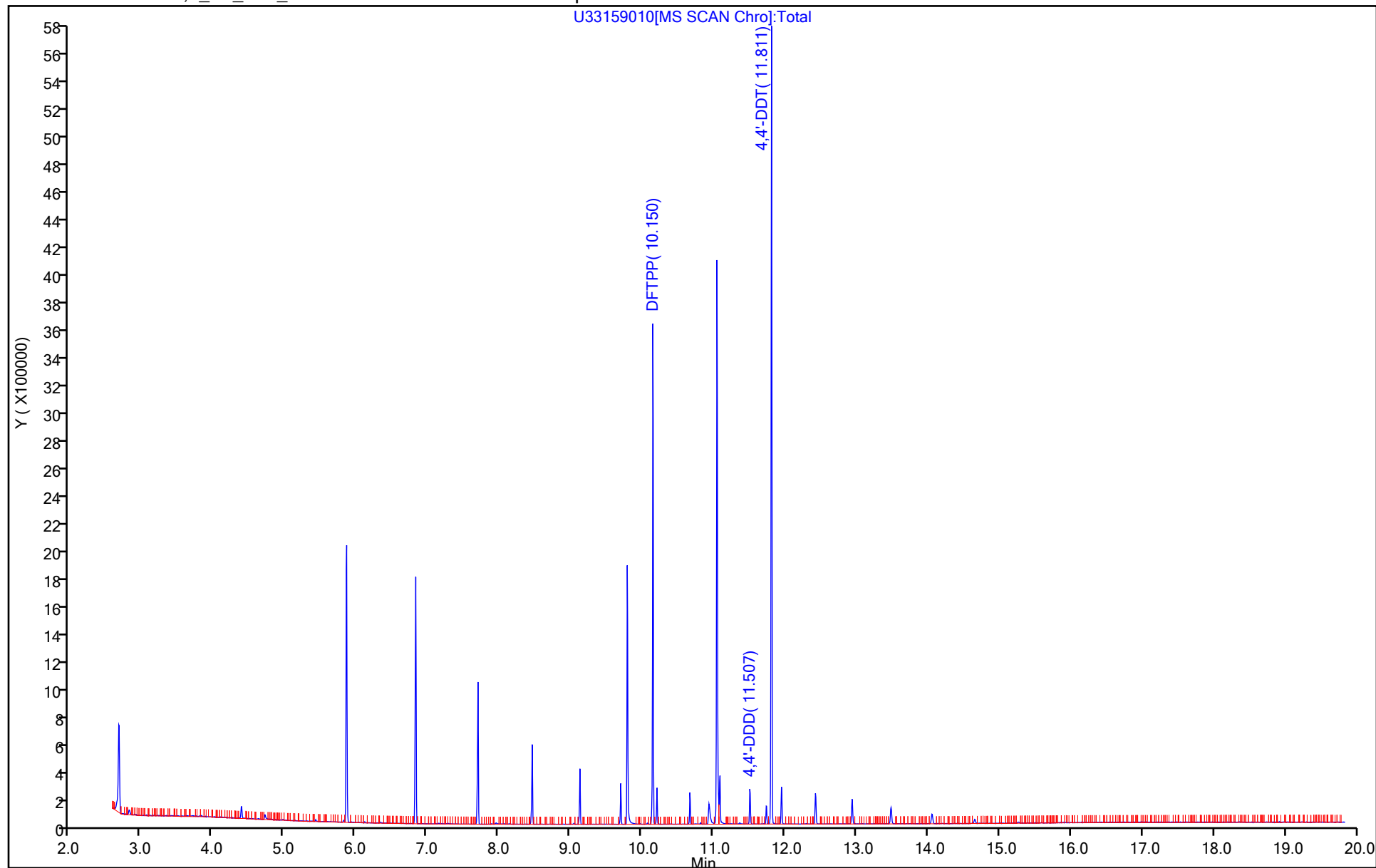
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 2

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159010.D
Injection Date: 28-Oct-2020 12:42:30 Instrument ID: HP5973U
Lims ID: DFTPP
Client ID:
Operator ID: JM ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1,4_Dx_SIM_HP5973U Limit Group: MB - 8270D SIM ID ICAL

6 4,4'-DDT, Detector: MS SCAN

SW-846 Method

%Breakdown =

$$\left(\frac{\text{Area Breakdown Cpnds}}{\text{Total Area Breakdown Cpnds}} \right) * 100$$

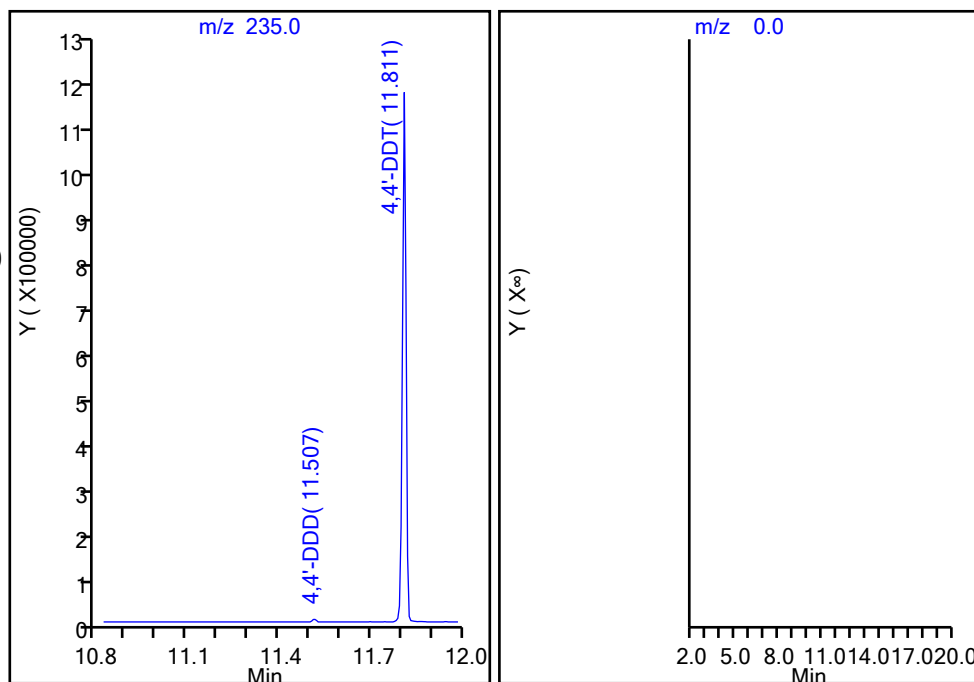
6 4,4'-DDT, Area = 975797

5 4,4'-DDD, Area = 5227

7 4,4'-DDE, Area = 0

%Breakdown: 0.53%, <= 20.00%

Passed



Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\U33159040.D
 Lims ID: DFTPP
 Client ID:
 Sample Type: DFTPP
 Inject. Date: 29-Oct-2020 00:41:30 ALS Bottle#: 32 Worklist Smp#: 2
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094526-002
 Operator ID: JM Instrument ID: HP5973U
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 29-Oct-2020 15:44:45 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: Deconvolution ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1674

First Level Reviewer: marshallj

Date: 29-Oct-2020 15:40:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
* 2 1,4-Dichlorobenzene-d4	152		6.126				4.00	ND	
4 DFTPP									
7 4,4'-DDE	246		10.994					ND	
5 4,4'-DDD	235	11.517	11.517	0.000	97	223419			NR
6 4,4'-DDT	235	11.811	11.811	0.000	98	830093	NR		NR

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

MB_DFTPP_WRK_00382

Amount Added: 1.00

Units: mL

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\U33159040.D

Injection Date: 29-Oct-2020 00:41:30

Instrument ID: HP5973U

Lims ID: DFTPP

Client ID:

Operator ID: JM

ALS Bottle#: 32 Worklist Smp#: 2

Injection Vol: 1.0 ul

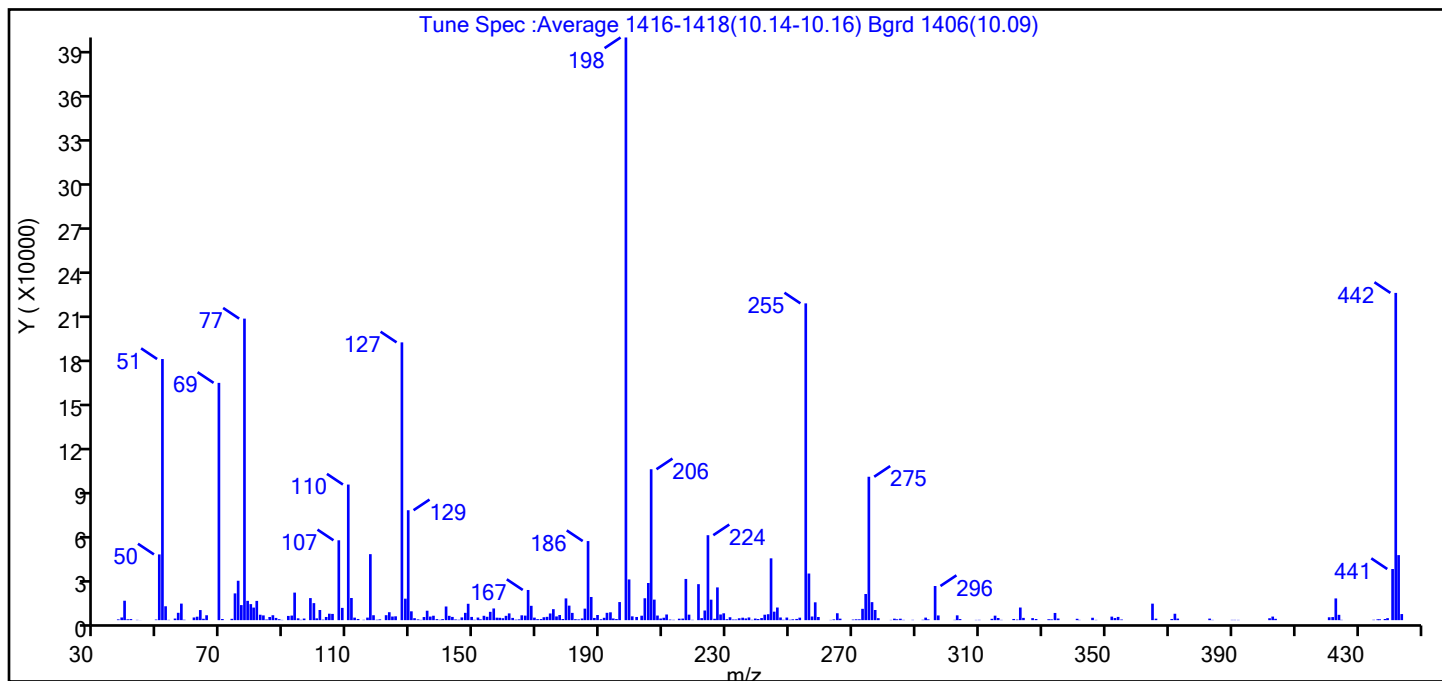
Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

Tune Method: DFTPP Method 8270D, BP 198

4 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	base peak, or >50% of 442	100.0 (178.1)
51	10-80% of the base peak	44.8
68	<2% of mass 69	0.0 (0.0)
69	Present	40.7
70	<2% of mass 69	0.2 (0.5)
127	10-80% of the base peak	47.7
197	<2% of mass 198	0.0
199	5-9% of mass 198	7.0
275	10-60% of the base peak	24.6
365	>1% of mass 198	2.8
441	present but <24% of mass 442	8.8 (15.6)
442	base peak, or >50% of 198	56.2
443	15-24% of mass 442	11.2 (19.9)

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\U33159040.D\1,4_Dx_SIM_HP5973U.rslt\spe
Injection Date: 29-Oct-2020 00:41:30
Spectrum: Tune Spec :Average 1416-1418(10.14-10.16) Bgrd 1406(10.09)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 276

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	532	125.00	2627	195.00	758	275.00	98128
38.00	1827	127.00	190080	196.00	12374	276.00	12321
39.00	13287	128.00	14695	198.00	398720	277.00	6946
40.00	586	129.00	75216	199.00	27856	278.00	1352
41.00	731	130.00	6038	200.00	2593	282.00	180
43.00	198	131.00	1336	201.00	2173	283.00	1016
44.00	50	132.00	523	203.00	3034	284.00	593
49.00	403	133.00	201	204.00	14977	285.00	982
50.00	44976	134.00	2130	205.00	25416	286.00	188
51.00	178688	135.00	6445	206.00	103272	289.00	215
52.00	9495	136.00	2451	207.00	14049	292.00	262
53.00	192	137.00	3018	208.00	3148	293.00	1727
55.00	1091	138.00	702	209.00	1105	294.00	524
56.00	5020	139.00	236	210.00	1633	296.00	23360
57.00	11321	140.00	709	211.00	3872	297.00	3216
58.00	279	141.00	9341	212.00	397	302.00	210
61.00	1823	142.00	2943	213.00	228	303.00	3284
62.00	2354	143.00	2209	215.00	992	304.00	742
63.00	6898	144.00	500	216.00	1068	309.00	174
64.00	941	145.00	271	217.00	28192	310.00	215
65.00	3350	146.00	1871	218.00	3758	314.00	903
69.00	162368	147.00	4993	219.00	219	315.00	3068
70.00	782	148.00	11201	221.00	24632	316.00	1464
73.00	895	149.00	2204	222.00	1381	317.00	183
74.00	18304	150.00	264	223.00	6602	321.00	801
75.00	26960	151.00	1786	224.00	58128	322.00	383
76.00	10299	152.00	583	225.00	14014	323.00	8638
77.00	206336	153.00	2983	226.00	943	324.00	1545
78.00	13217	154.00	2294	227.00	22408	327.00	1386
79.00	10971	155.00	5691	228.00	3879	328.00	775
80.00	8601	156.00	7987	229.00	4693	332.00	628
81.00	13169	157.00	1689	230.00	647	333.00	546
82.00	3695	158.00	1598	231.00	1994	334.00	4920

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\U33159040.D\1_4_Dx_SIM_HP5973U.rslt\spe

Injection Date: 29-Oct-2020 00:41:30

Spectrum: Tune Spec :Average 1416-1418(10.14-10.16) Bgrd 1406(10.09)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 276

m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.00	3243	159.00	1309	232.00	424	335.00	1120
84.00	439	160.00	2955	233.00	424	341.00	925
85.00	2166	161.00	4627	234.00	1277	342.00	181
86.00	3361	162.00	1530	235.00	1671	346.00	1628
87.00	1520	163.00	340	236.00	1163	347.00	197
88.00	637	164.00	533	237.00	1845	352.00	2403
89.00	171	165.00	3311	238.00	240	353.00	1441
91.00	2888	166.00	3104	239.00	1087	354.00	2213
92.00	3127	167.00	20640	240.00	761	355.00	439
93.00	18848	168.00	9806	241.00	1420	365.00	11289
94.00	1250	169.00	1724	242.00	3716	366.00	1004
95.00	233	170.00	705	243.00	4051	371.00	795
96.00	1091	171.00	744	244.00	42304	372.00	4382
98.00	15096	172.00	1984	245.00	5801	373.00	1066
99.00	11642	173.00	2255	246.00	8641	383.00	1061
100.00	1220	174.00	4574	247.00	1823	384.00	176
101.00	6943	175.00	7531	248.00	244	390.00	197
102.00	354	176.00	2537	249.00	1775	391.00	199
103.00	2176	177.00	3502	250.00	259	392.00	177
104.00	4409	178.00	785	251.00	582	402.00	1295
105.00	4269	179.00	14880	252.00	821	403.00	2444
107.00	54648	180.00	9931	253.00	1699	404.00	910
108.00	8392	181.00	4967	255.00	216768	421.00	1956
110.00	92784	182.00	664	256.00	31904	422.00	2103
111.00	15146	183.00	513	257.00	2479	423.00	14864
112.00	1720	184.00	1120	258.00	12201	424.00	3637
113.00	800	185.00	7873	259.00	2160	425.00	204
115.00	242	186.00	54112	263.00	169	435.00	250
116.00	1737	187.00	15843	264.00	512	436.00	569
117.00	45160	188.00	1505	265.00	4721	437.00	577
118.00	3355	189.00	3521	266.00	1010	439.00	783
119.00	297	190.00	600	270.00	383	439.00	1368
120.00	541	191.00	1593	271.00	576	441.00	34992
122.00	3387	192.00	5014	272.00	579	442.00	223936

Report Date: 29-Oct-2020 15:44:46

Chrom Revision: 2.3 14-Oct-2020 14:51:38

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\U33159040.D\1,4_Dx_SIM_HP5973U.rslt\spe

Injection Date: 29-Oct-2020 00:41:30

Spectrum: Tune Spec :Average 1416-1418(10.14-10.16) Bgrd 1406(10.09)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 276

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	5425	193.00	5356	273.00	7748	443.00	44496
124.00	2464	194.00	1139	274.00	17880	444.00	4170

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\U33159040.D

Injection Date: 29-Oct-2020 00:41:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: DFTPP

Worklist Smp#: 2

Client ID:

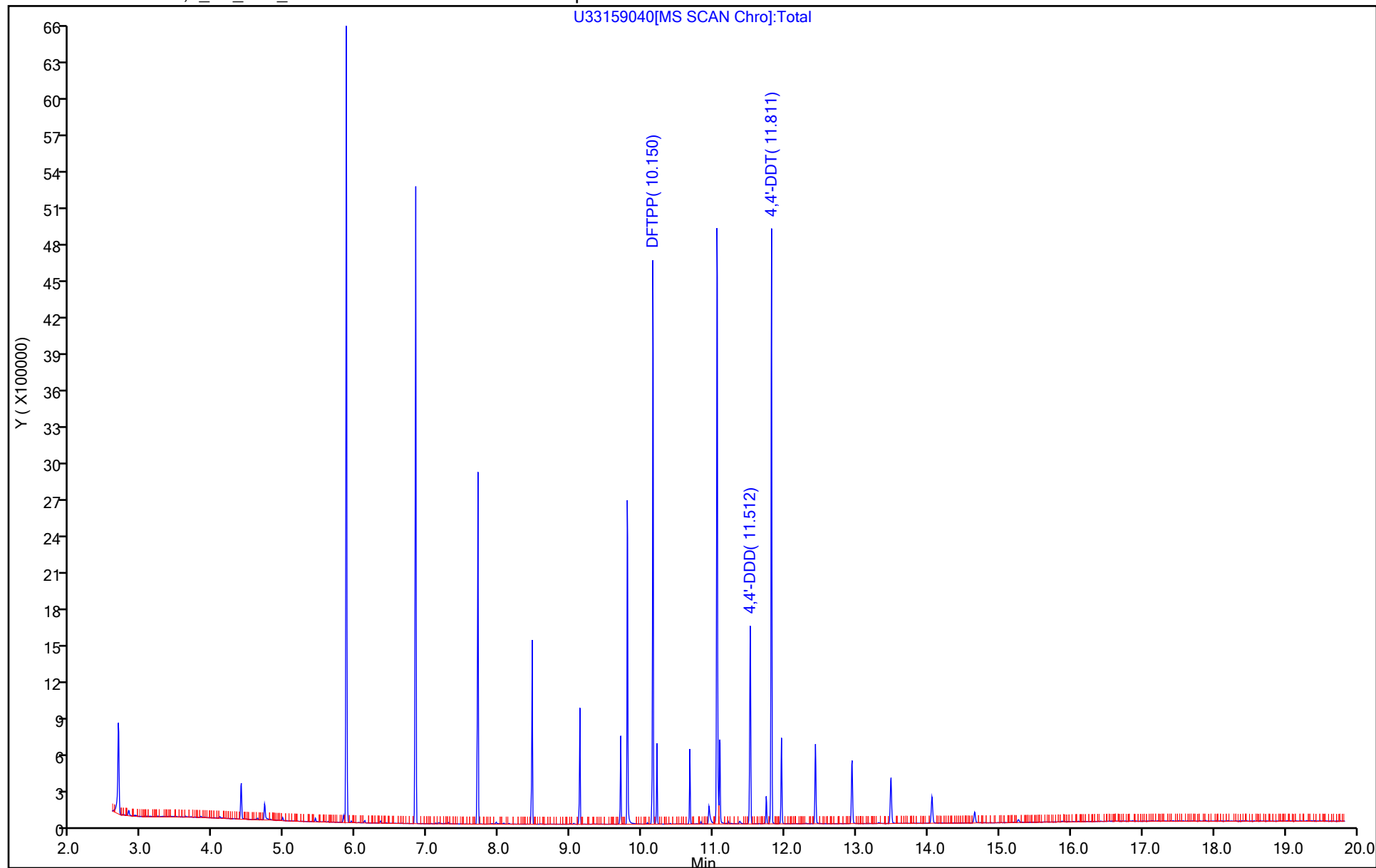
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 32

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94526.b\U33159040.D
Injection Date: 29-Oct-2020 00:41:30 Instrument ID: HP5973U
Lims ID: DFTPP
Client ID:
Operator ID: JM ALS Bottle#: 32 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1,4_Dx_SIM_HP5973U Limit Group: MB - 8270D SIM ID ICAL

6 4,4'-DDT, Detector: MS SCAN

SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

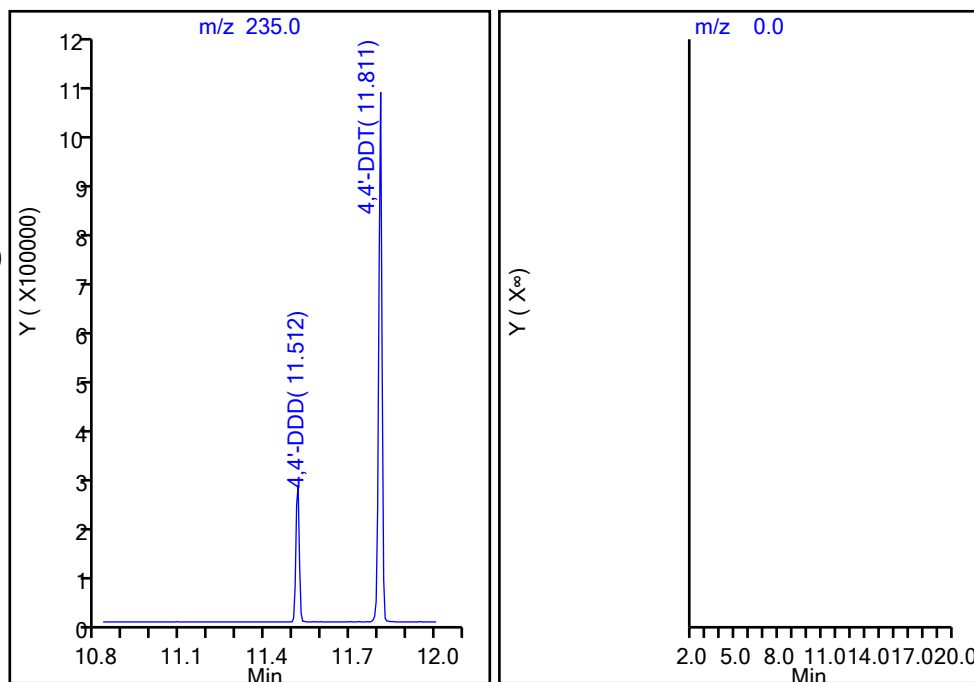
6 4,4'-DDT, Area = 830093

5 4,4'-DDD, Area = 223419

7 4,4'-DDE, Area = 0

%Breakdown:* 21.21%, <= 20.00%

Failed



Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201030-94580.b\U33159087.D
 Lims ID: DFTPP
 Client ID:
 Sample Type: DFTPP
 Inject. Date: 30-Oct-2020 10:14:30 ALS Bottle#: 2 Worklist Smp#: 2
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094580-002
 Operator ID: JM Instrument ID: HP5973U
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201030-94580.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 30-Oct-2020 13:03:29 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: Deconvolution ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D

Column 1 : Det: MS SCAN
 Process Host: CTX1635

First Level Reviewer: marshallj

Date: 30-Oct-2020 10:36:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
* 2 1,4-Dichlorobenzene-d4	152		6.101				4.00	ND	
4 DFTPP									
7 4,4'-DDE	246		10.994					ND	
5 4,4'-DDD	235	11.480	11.480	0.000	97	22766			NR
6 4,4'-DDT	235	11.774	11.774	0.000	97	1143195	NR		NR

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

MB_DFTPP_WRK_00382

Amount Added: 1.00

Units: mL

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201030-94580.b\U33159087.D

Injection Date: 30-Oct-2020 10:14:30

Instrument ID: HP5973U

Lims ID: DFTPP

Client ID:

Operator ID: JM

ALS Bottle#: 2 Worklist Smp#: 2

Injection Vol: 1.0 ul

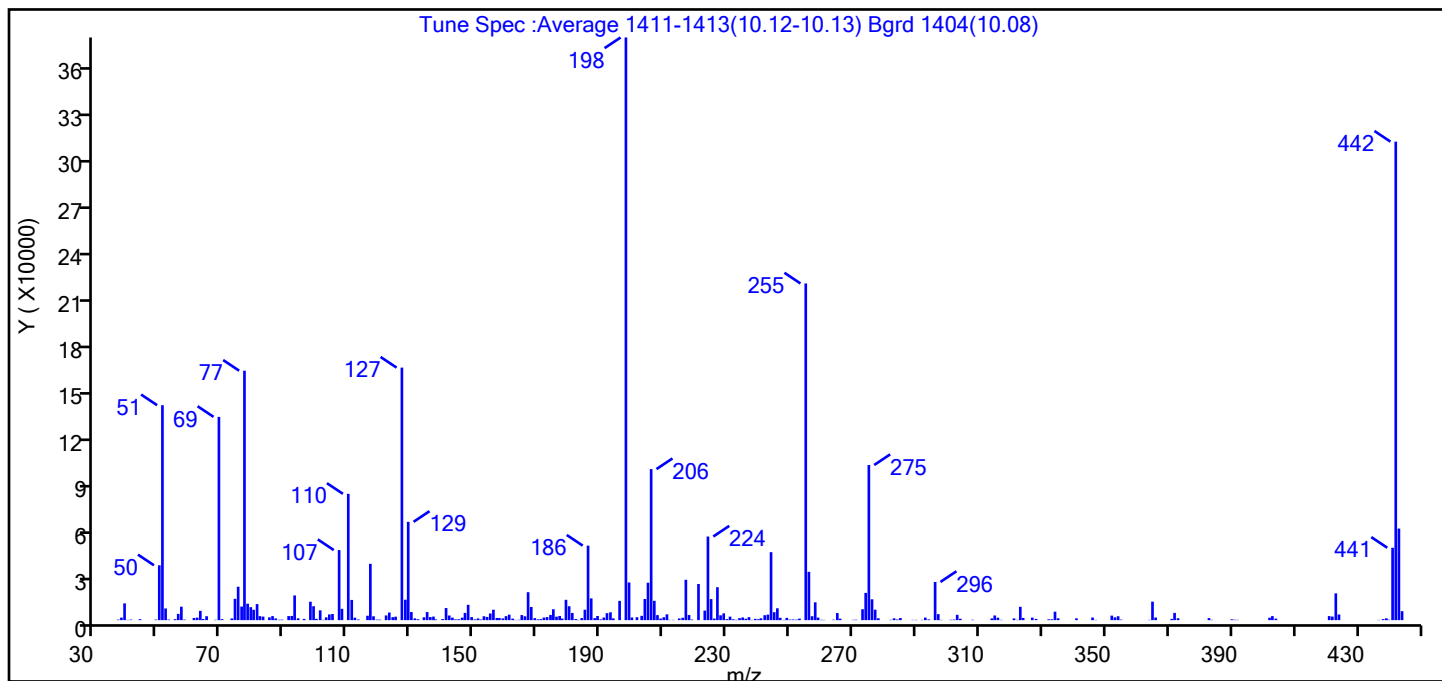
Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

Tune Method: DFTPP Method 8270D, BP 198

4 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	base peak, or >50% of 442	100.0 (121.8)
51	10-80% of the base peak	36.9
68	<2% of mass 69	0.1 (0.2)
69	Present	34.9
70	<2% of mass 69	0.2 (0.5)
127	10-80% of the base peak	43.3
197	<2% of mass 198	0.0
199	5-9% of mass 198	6.5
275	10-60% of the base peak	26.6
365	>1% of mass 198	3.2
441	present but <24% of mass 442	12.4 (15.1)
442	base peak, or >50% of 198	82.1
443	15-24% of mass 442	15.7 (19.1)

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201030-94580.b\U33159087.D\1,4_Dx_SIM_HP5973U.rsltspe
Injection Date: 30-Oct-2020 10:14:30
Spectrum: Tune Spec :Average 1411-1413(10.12-10.13) Bgrd 1404(10.08)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 268

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	347	127.00	162624	198.00	375232	276.00	13433
38.00	1625	128.00	13162	199.00	24264	277.00	6735
39.00	10796	129.00	63312	200.00	1701	278.00	1186
40.00	173	130.00	5229	202.00	1893	282.00	239
41.00	336	131.00	1132	203.00	2768	283.00	1166
44.00	632	132.00	593	204.00	13602	284.00	438
49.00	365	134.00	1844	205.00	24096	285.00	1367
50.00	35328	135.00	5205	206.00	97288	289.00	185
51.00	138432	136.00	2012	207.00	12442	290.00	197
52.00	7525	137.00	2293	208.00	3242	292.00	212
53.00	365	138.00	488	209.00	997	293.00	1639
55.00	652	140.00	724	210.00	1884	294.00	501
56.00	4022	141.00	7789	211.00	3753	296.00	24600
57.00	8661	142.00	2983	212.00	167	297.00	3864
58.00	350	143.00	1598	213.00	172	298.00	173
61.00	1421	144.00	494	215.00	1071	301.00	270
62.00	1629	145.00	561	216.00	1530	302.00	387
63.00	5974	146.00	1619	217.00	25984	303.00	3421
64.00	740	147.00	4664	218.00	3296	304.00	892
65.00	2530	148.00	9867	219.00	395	308.00	254
68.00	230	149.00	1961	221.00	23272	314.00	1133
69.00	130896	150.00	505	223.00	6149	315.00	3004
70.00	661	151.00	1085	224.00	53848	316.00	1586
73.00	1115	152.00	417	225.00	13560	317.00	190
74.00	13718	153.00	2499	226.00	1019	321.00	1120
75.00	21520	154.00	2059	227.00	21208	322.00	191
76.00	8752	155.00	4289	228.00	3118	323.00	8592
77.00	160640	156.00	6713	229.00	4376	324.00	1439
78.00	10581	157.00	1418	230.00	639	327.00	1609
79.00	8356	158.00	1341	231.00	2260	328.00	775
80.00	6687	159.00	1116	232.00	563	332.00	547
81.00	10348	160.00	2579	233.00	222	333.00	562
82.00	2573	161.00	3545	234.00	1270	334.00	5455

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201030-94580.b\U33159087.D\1_4_Dx_SIM_HP5973U.rslt\spe

Injection Date: 30-Oct-2020 10:14:30

Spectrum: Tune Spec :Average 1411-1413(10.12-10.13) Bgrd 1404(10.08)

Base Peak: 198.00

Minimum % Base Peak: 0

Number of Points: 268

m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.00	2270	162.00	978	235.00	1721	335.00	1193
85.00	1802	163.00	173	236.00	921	341.00	1143
86.00	2595	164.00	249	237.00	1926	346.00	1679
87.00	1097	165.00	3265	238.00	169	347.00	179
88.00	267	166.00	2487	239.00	852	352.00	2899
89.00	322	167.00	17992	240.00	594	353.00	1798
91.00	2608	168.00	8461	241.00	1193	354.00	2507
92.00	2697	169.00	1278	242.00	3178	355.00	357
93.00	15900	170.00	512	243.00	3566	364.00	209
94.00	1175	171.00	626	244.00	43776	365.00	11917
96.00	817	172.00	1649	245.00	5123	366.00	1676
98.00	11855	173.00	1964	246.00	7639	371.00	806
99.00	8962	174.00	3339	247.00	1519	372.00	4656
100.00	847	175.00	7015	248.00	182	373.00	1222
101.00	6314	176.00	2229	249.00	1454	383.00	1321
102.00	183	177.00	2696	250.00	352	384.00	204
103.00	1802	178.00	1022	251.00	418	390.00	526
104.00	3672	179.00	13091	252.00	344	391.00	270
105.00	3953	180.00	8965	253.00	980	392.00	195
107.00	45128	181.00	4615	255.00	216832	402.00	1564
108.00	7286	182.00	712	256.00	31120	403.00	2601
110.00	81336	183.00	182	257.00	2521	404.00	991
111.00	13014	184.00	1316	258.00	11468	421.00	2613
112.00	1589	185.00	6713	259.00	1648	422.00	2313
113.00	434	186.00	47984	260.00	214	423.00	17248
116.00	2850	187.00	14008	261.00	166	424.00	3633
117.00	36288	188.00	1278	264.00	310	437.00	168
118.00	2492	189.00	2654	265.00	4564	438.00	664
119.00	349	190.00	482	266.00	940	439.00	1178
120.00	348	191.00	1698	270.00	190	440.00	295
122.00	3037	192.00	4502	271.00	277	441.00	46616
123.00	4896	193.00	5047	273.00	7029	442.00	308160
124.00	1923	194.00	1135	274.00	17560	443.00	58968
125.00	2227	196.00	12422	275.00	99904	444.00	5782

m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.00	2270	162.00	978	235.00	1721	335.00	1193
85.00	1802	163.00	173	236.00	921	341.00	1143
86.00	2595	164.00	249	237.00	1926	346.00	1679
87.00	1097	165.00	3265	238.00	169	347.00	179
88.00	267	166.00	2487	239.00	852	352.00	2899
89.00	322	167.00	17992	240.00	594	353.00	1798
91.00	2608	168.00	8461	241.00	1193	354.00	2507
92.00	2697	169.00	1278	242.00	3178	355.00	357
93.00	15900	170.00	512	243.00	3566	364.00	209
94.00	1175	171.00	626	244.00	43776	365.00	11917
96.00	817	172.00	1649	245.00	5123	366.00	1676
98.00	11855	173.00	1964	246.00	7639	371.00	806
99.00	8962	174.00	3339	247.00	1519	372.00	4656
100.00	847	175.00	7015	248.00	182	373.00	1222
101.00	6314	176.00	2229	249.00	1454	383.00	1321
102.00	183	177.00	2696	250.00	352	384.00	204
103.00	1802	178.00	1022	251.00	418	390.00	526
104.00	3672	179.00	13091	252.00	344	391.00	270
105.00	3953	180.00	8965	253.00	980	392.00	195
107.00	45128	181.00	4615	255.00	216832	402.00	1564
108.00	7286	182.00	712	256.00	31120	403.00	2601
110.00	81336	183.00	182	257.00	2521	404.00	991
111.00	13014	184.00	1316	258.00	11468	421.00	2613
112.00	1589	185.00	6713	259.00	1648	422.00	2313
113.00	434	186.00	47984	260.00	214	423.00	17248
116.00	2850	187.00	14008	261.00	166	424.00	3633
117.00	36288	188.00	1278	264.00	310	437.00	168
118.00	2492	189.00	2654	265.00	4564	438.00	664
119.00	349	190.00	482	266.00	940	439.00	1178
120.00	348	191.00	1698	270.00	190	440.00	295
122.00	3037	192.00	4502	271.00	277	441.00	46616
123.00	4896	193.00	5047	273.00	7029	442.00	308160
124.00	1923	194.00	1135	274.00	17560	443.00	58968
125.00	2227	196.00	12422	275.00	99904	444.00	5782

Report Date: 30-Oct-2020 13:03:30

Chrom Revision: 2.3 14-Oct-2020 14:51:38

Euofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201030-94580.b\U33159087.D

Injection Date: 30-Oct-2020 10:14:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: DFTPP

Worklist Smp#: 2

Client ID:

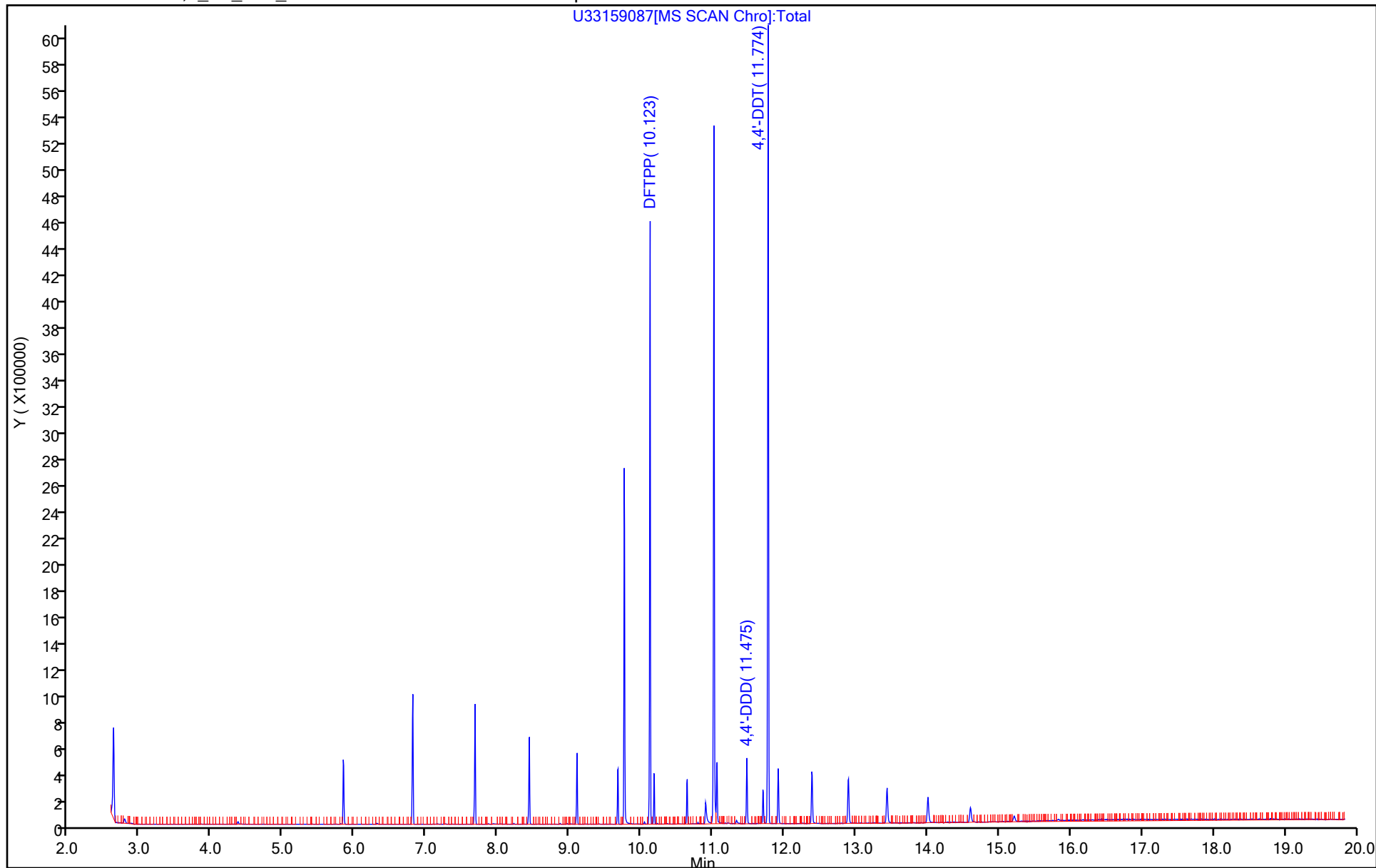
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 2

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201030-94580.b\U33159087.D

Injection Date: 30-Oct-2020 10:14:30

Instrument ID: HP5973U

Lims ID: DFTPP

Client ID:

Operator ID: JM

ALS Bottle#:

2

Worklist Smp#:

2

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group:

MB - 8270D SIM ID ICAL

6 4,4'-DDT, Detector: MS SCAN

SW-846 Method

%Breakdown =

$$\left(\frac{\text{Area Breakdown Cpnds}}{\text{Total Area Breakdown Cpnds}} \right) * 100$$

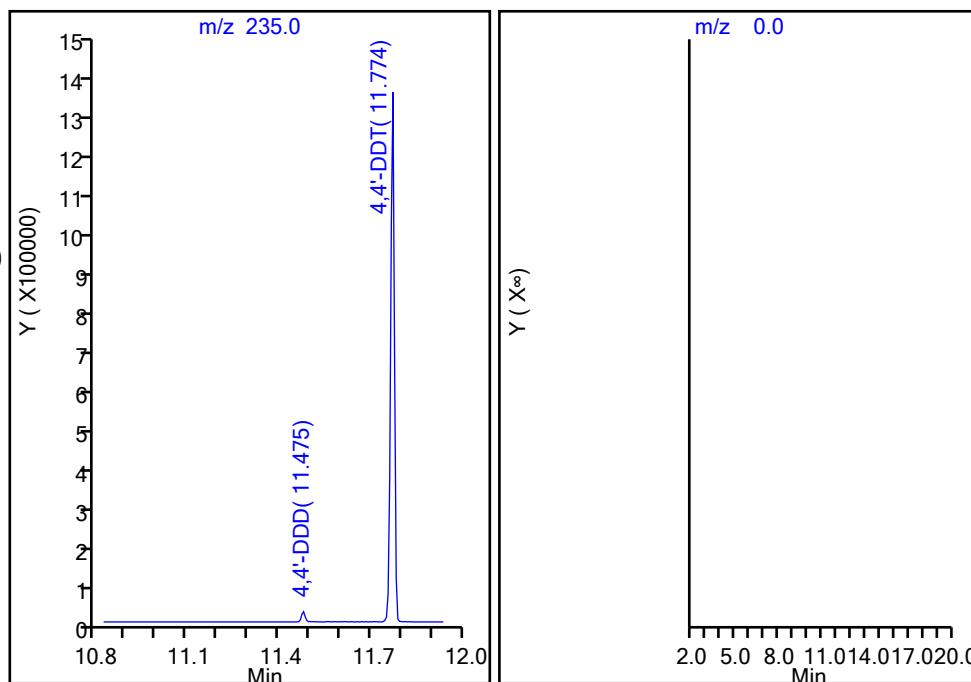
6 4,4'-DDT, Area = 1143195

5 4,4'-DDD, Area = 22766

7 4,4'-DDE, Area = 0

%Breakdown: 1.95%, <= 20.00%

Passed



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: MB 480-555696/1-A
Matrix: Water Lab File ID: U33159029.D
Analysis Method: 8270D SIM ID Date Collected: _____
Extract. Method: 3510C Date Extracted: 10/26/2020 08:16
Sample wt/vol: 1000 (mL) Date Analyzed: 10/28/2020 20:18
Con. Extract Vol.: 1 (mL) Dilution Factor: 1
Injection Volume: 1 (uL) Level: (low/med) Low
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 556213 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.20	0.10

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	32		15-110

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159029.D
 Lims ID: MB 480-555696/1-A
 Client ID:
 Sample Type: MB
 Inject. Date: 28-Oct-2020 20:18:30 ALS Bottle#: 21 Worklist Smp#: 21
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094517-021
 Operator ID: JM Instrument ID: HP5973U
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 29-Oct-2020 15:43:28 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1674

First Level Reviewer: marshallj

Date: 29-Oct-2020 15:38:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	3.135	3.045	0.090	96	200768	10.0	3.18	
3 1,4-Dioxane	88		3.090					ND	U
* 2 1,4-Dichlorobenzene-d4	152	6.134	6.126	0.008	94	518737	4.00	4.00	

QC Flag Legend

Processing Flags

Review Flags

U - Marked Undetected

Reagents:

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159029.D

Injection Date: 28-Oct-2020 20:18:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: MB 480-555696/1-A

Worklist Smp#: 21

Client ID:

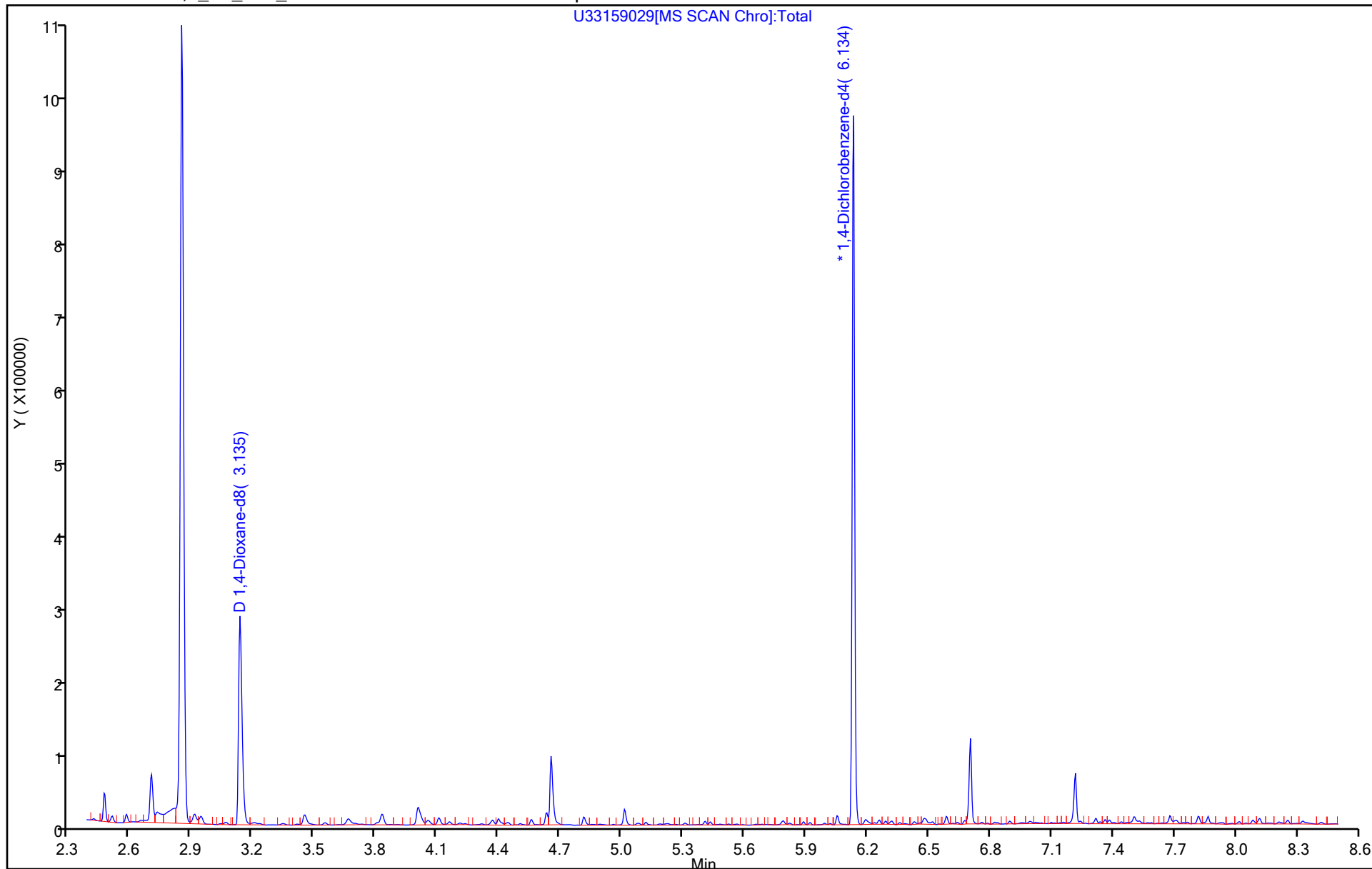
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 21

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159029.D

Injection Date: 28-Oct-2020 20:18:30

Instrument ID: HP5973U

Lims ID: MB 480-555696/1-A

Client ID:

Operator ID: JM

ALS Bottle#: 21

Worklist Smp#: 21

Injection Vol: 1.0 ul

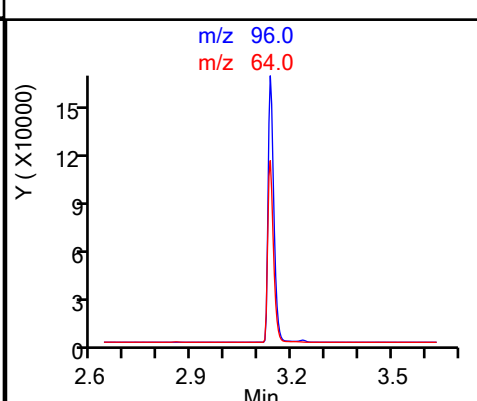
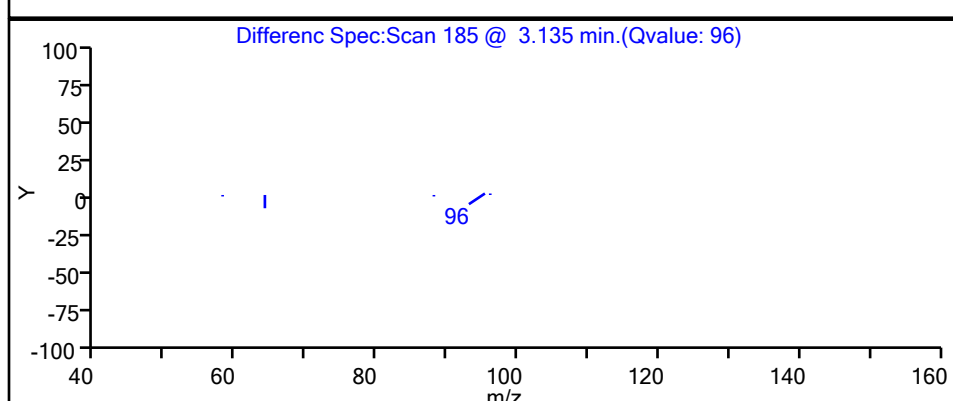
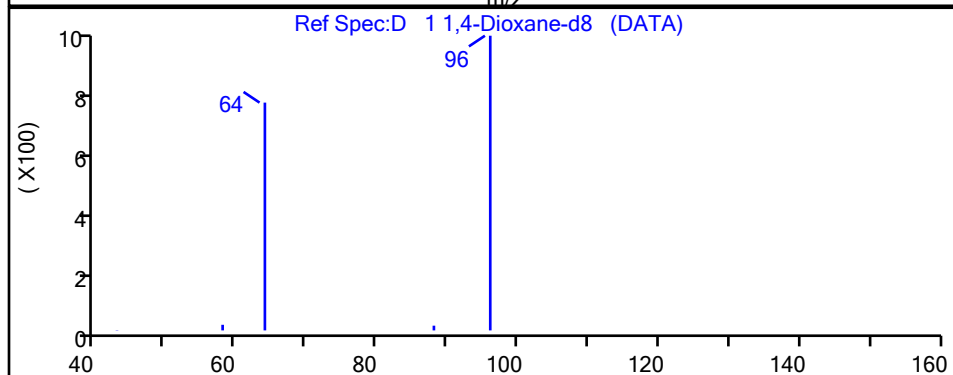
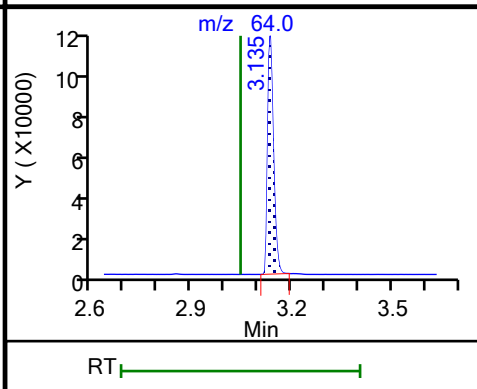
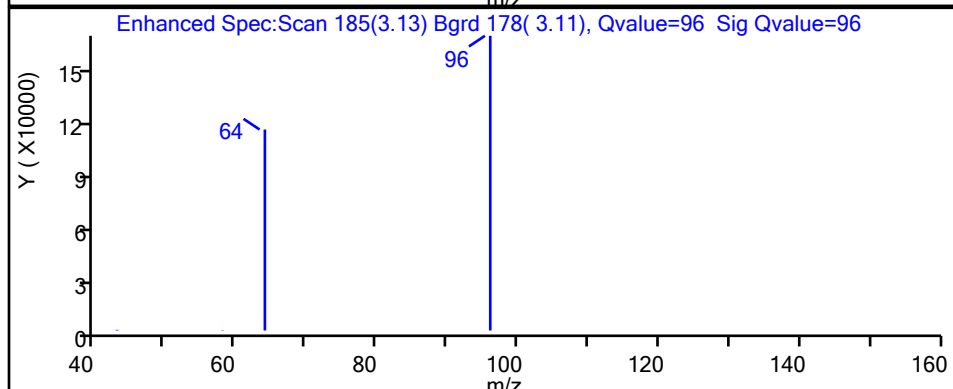
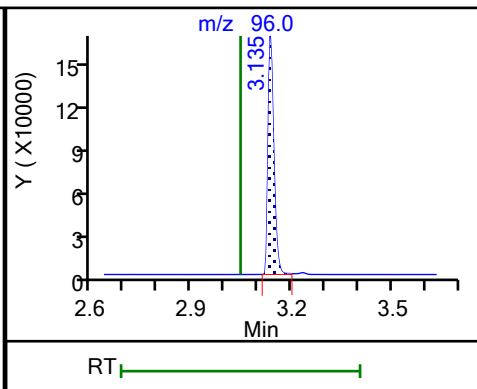
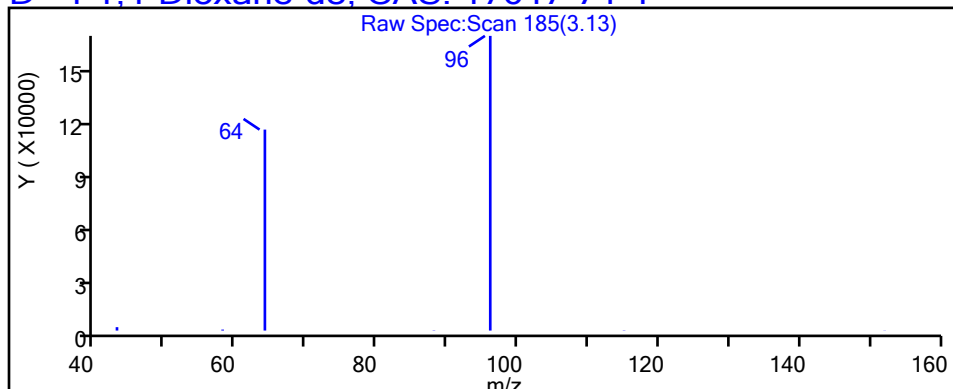
Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL

Column:

Detector MS SCAN

D 1 1,4-Dioxane-d8, CAS: 17647-74-4

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159029.D

Injection Date: 28-Oct-2020 20:18:30

Instrument ID: HP5973U

Lims ID: MB 480-555696/1-A

Client ID:

Operator ID: JM

ALS Bottle#:

21

Worklist Smp#: 21

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: 1,4_Dx_SIM_HP5973U

Limit Group:

MB - 8270D SIM ID ICAL

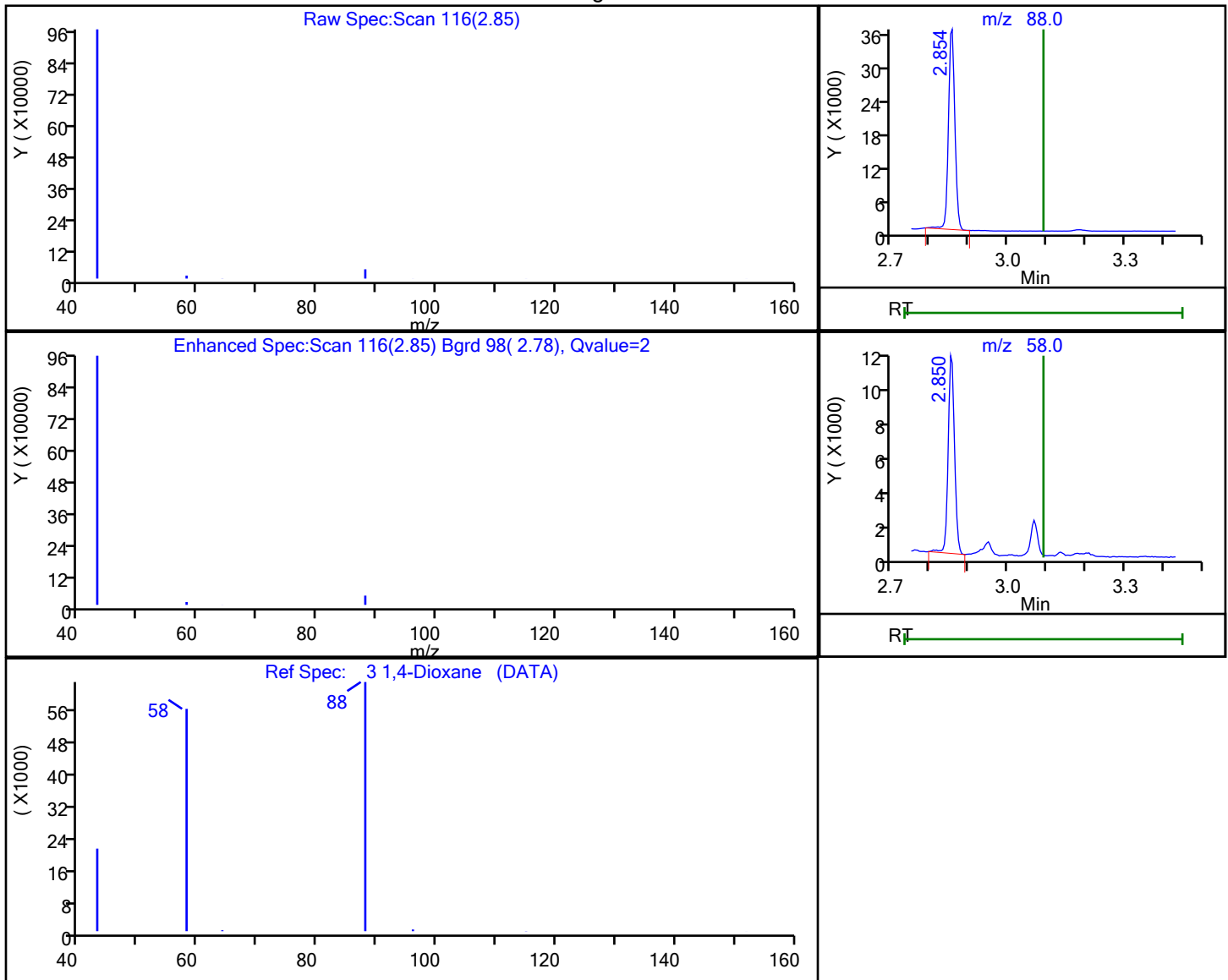
Column:

Detector

MS SCAN

3 1,4-Dioxane, CAS: 123-91-1

Processing Results



RT	Mass	Response	Amount
2.85	88.00	41223	1.951550
2.85	58.00	13169	

Reviewer: marshallj, 29-Oct-2020 15:38:16

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 480-555696/2-A
 Matrix: Water Lab File ID: U33159030.D
 Analysis Method: 8270D SIM ID Date Collected: _____
 Extract. Method: 3510C Date Extracted: 10/26/2020 08:16
 Sample wt/vol: 1000 (mL) Date Analyzed: 10/28/2020 20:41
 Con. Extract Vol.: 1 (mL) Dilution Factor: 1
 Injection Volume: 1 (uL) Level: (low/med) Low
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 556213 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.15		0.20	0.10

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	34		15-110

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159030.D
 Lims ID: LCS 480-555696/2-A
 Client ID:
 Sample Type: LCS
 Inject. Date: 28-Oct-2020 20:41:30 ALS Bottle#: 22 Worklist Smp#: 22
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094517-022
 Operator ID: JM Instrument ID: HP5973U
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 29-Oct-2020 15:43:28 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D
 Column 1 : Det: MS SCAN
 Process Host: CTX1674

First Level Reviewer: marshallj

Date: 29-Oct-2020 15:38:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	3.184	3.045	0.139	95	211174	10.0	3.45	
3 1,4-Dioxane	88	3.224	3.090	0.134	93	25445	1.00	1.15	
* 2 1,4-Dichlorobenzene-d4	152	6.134	6.126	0.008	96	503164	4.00	4.00	

QC Flag Legend

Processing Flags

Reagents:

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201028-94517.b\U33159030.D

Injection Date: 28-Oct-2020 20:41:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: LCS 480-555696/2-A

Worklist Smp#: 22

Client ID:

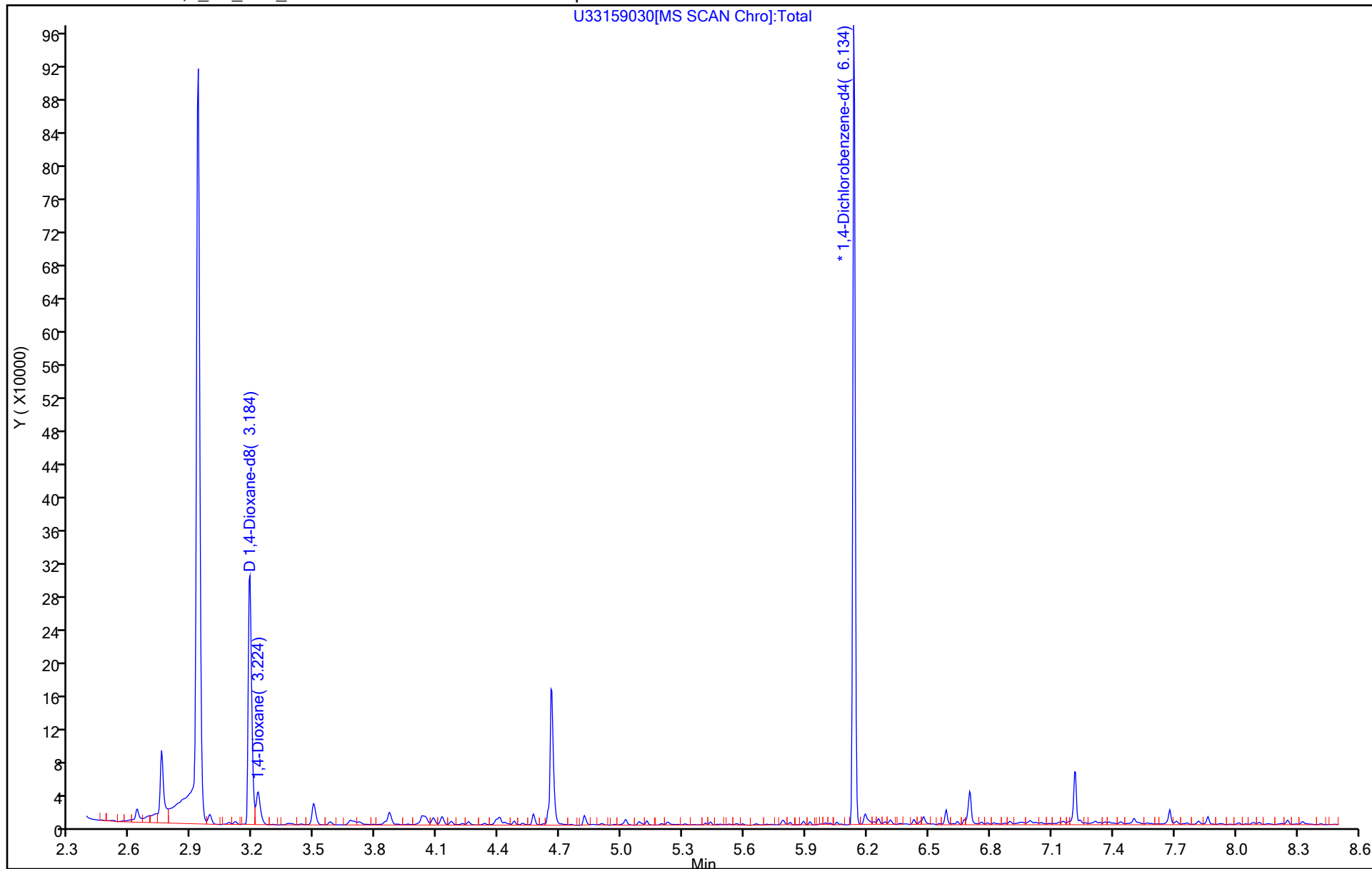
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 22

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1
 SDG No.: _____
 Client Sample ID: TPW-33R MS Lab Sample ID: 480-176996-2 MS
 Matrix: Water Lab File ID: U33159089.D
 Analysis Method: 8270D SIM ID Date Collected: 10/21/2020 09:00
 Extract. Method: 3510C Date Extracted: 10/26/2020 08:16
 Sample wt/vol: 1050 (mL) Date Analyzed: 10/30/2020 11:05
 Con. Extract Vol.: 1 (mL) Dilution Factor: 1
 Injection Volume: 1 (uL) Level: (low/med) Low
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 556636 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.08		0.19	0.095

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	31		15-110

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201030-94580.b\U33159089.D
 Lims ID: 480-176996-A-2-A MS
 Client ID: TPW-33R
 Sample Type: MS
 Inject. Date: 30-Oct-2020 11:05:30 ALS Bottle#: 4 Worklist Smp#: 4
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094580-004
 Operator ID: JM Instrument ID: HP5973U
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201030-94580.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 30-Oct-2020 13:03:30 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D

Column 1 : Det: MS SCAN
 Process Host: CTX1635

First Level Reviewer: marshallj

Date: 30-Oct-2020 13:03:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	3.139	3.013	0.126	96	194757	10.0	3.08	
3 1,4-Dioxane	88	3.180	3.058	0.122	94	23226	1.00	1.13	
* 2 1,4-Dichlorobenzene-d4	152	6.105	6.101	0.004	96	519728	4.00	4.00	
7 4,4'-DDE	246		10.994					ND	
5 4,4'-DDD	235		11.480					ND	
6 4,4'-DDT	235		11.774					ND	

QC Flag Legend

Processing Flags

Reagents:

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201030-94580.b\U33159089.D

Injection Date: 30-Oct-2020 11:05:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: 480-176996-A-2-A MS

Worklist Smp#: 4

Client ID: TPW-33R

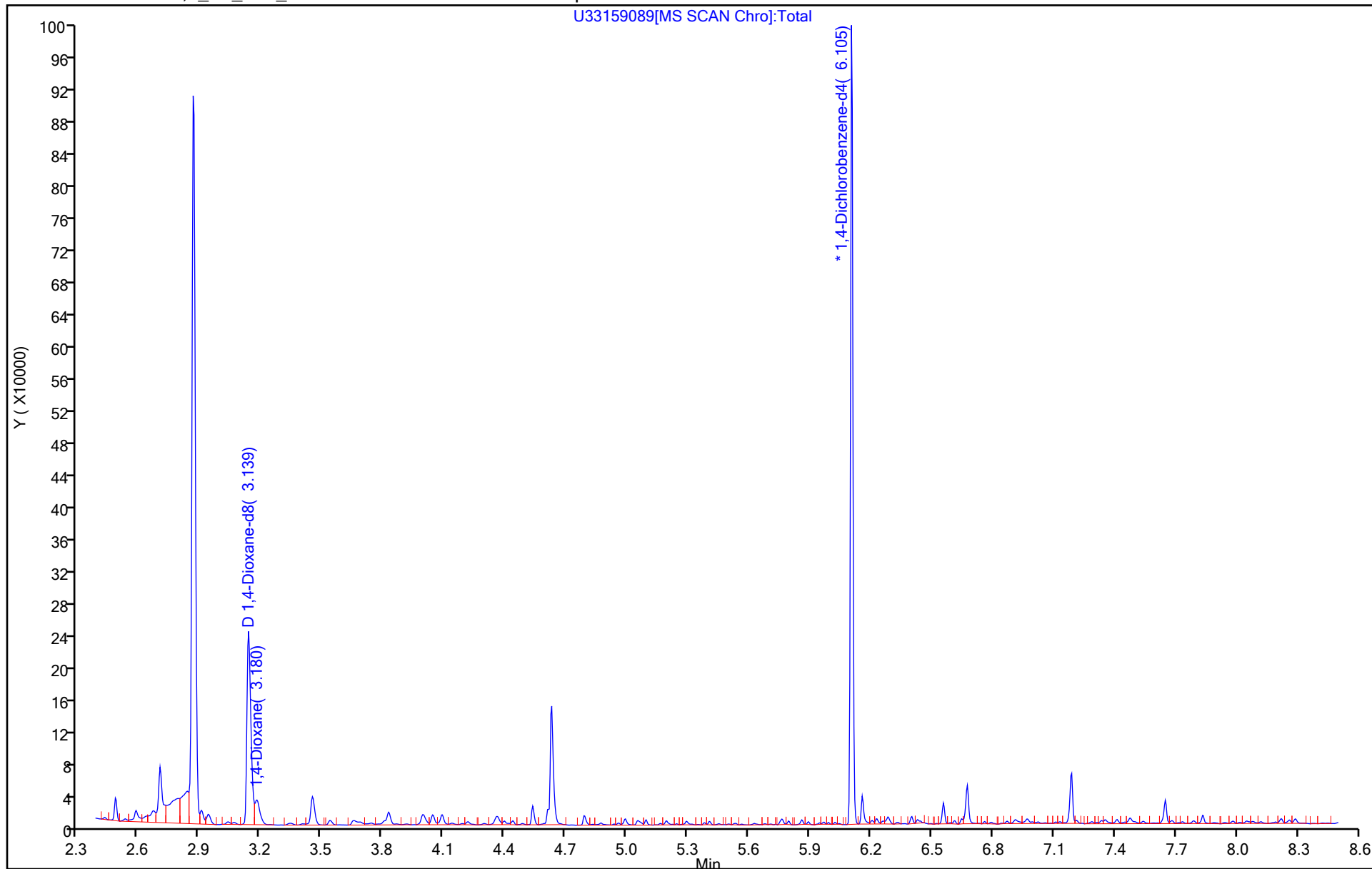
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 4

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1

SDG No.: _____

Client Sample ID: TPW-33R MSD Lab Sample ID: 480-176996-2 MSD

Matrix: Water Lab File ID: U33159090.D

Analysis Method: 8270D SIM ID Date Collected: 10/21/2020 09:00

Extract. Method: 3510C Date Extracted: 10/26/2020 08:16

Sample wt/vol: 1050 (mL) Date Analyzed: 10/30/2020 11:29

Con. Extract Vol.: 1 (mL) Dilution Factor: 1

Injection Volume: 1 (uL) Level: (low/med) Low

% Moisture: _____ GPC Cleanup: (Y/N) N

Analysis Batch No.: 556636 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.08		0.19	0.095

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	30		15-110

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201030-94580.b\U33159090.D
 Lims ID: 480-176996-B-2-A MSD
 Client ID: TPW-33R
 Sample Type: MSD
 Inject. Date: 30-Oct-2020 11:29:30 ALS Bottle#: 5 Worklist Smp#: 5
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 480-0094580-005
 Operator ID: JM Instrument ID: HP5973U
 Method: \\chromfs\Buffalo\ChromData\HP5973U\20201030-94580.b\1,4_Dx_SIM_HP5973U.m
 Limit Group: MB - 8270D SIM ID ICAL
 Last Update: 30-Oct-2020 13:03:30 Calib Date: 22-Oct-2020 21:13:30
 Integrator: Picker ID Type: RT Order ID
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Buffalo\ChromData\HP5973U\20201022-94362.b\U33158833.D

Column 1 : Det: MS SCAN
 Process Host: CTX1635

First Level Reviewer: marshallj

Date: 30-Oct-2020 13:03:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D 1 1,4-Dioxane-d8	96	3.139	3.013	0.126	92	198458	10.0	3.02	
3 1,4-Dioxane	88	3.184	3.058	0.126	94	23617	1.00	1.13	
* 2 1,4-Dichlorobenzene-d4	152	6.101	6.101	0.000	96	540538	4.00	4.00	
7 4,4'-DDE	246		10.994					ND	
5 4,4'-DDD	235		11.480					ND	
6 4,4'-DDT	235		11.774					ND	

QC Flag Legend

Processing Flags

Reagents:

MB_LLIS_WRK_00202

Amount Added: 20.00

Units: uL

Run Reagent

Report Date: 30-Oct-2020 13:03:31

Chrom Revision: 2.3 14-Oct-2020 14:51:38

Eurofins TestAmerica, Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973U\20201030-94580.b\U33159090.D

Injection Date: 30-Oct-2020 11:29:30

Instrument ID: HP5973U

Operator ID: JM

Lims ID: 480-176996-B-2-A MSD

Worklist Smp#: 5

Client ID: TPW-33R

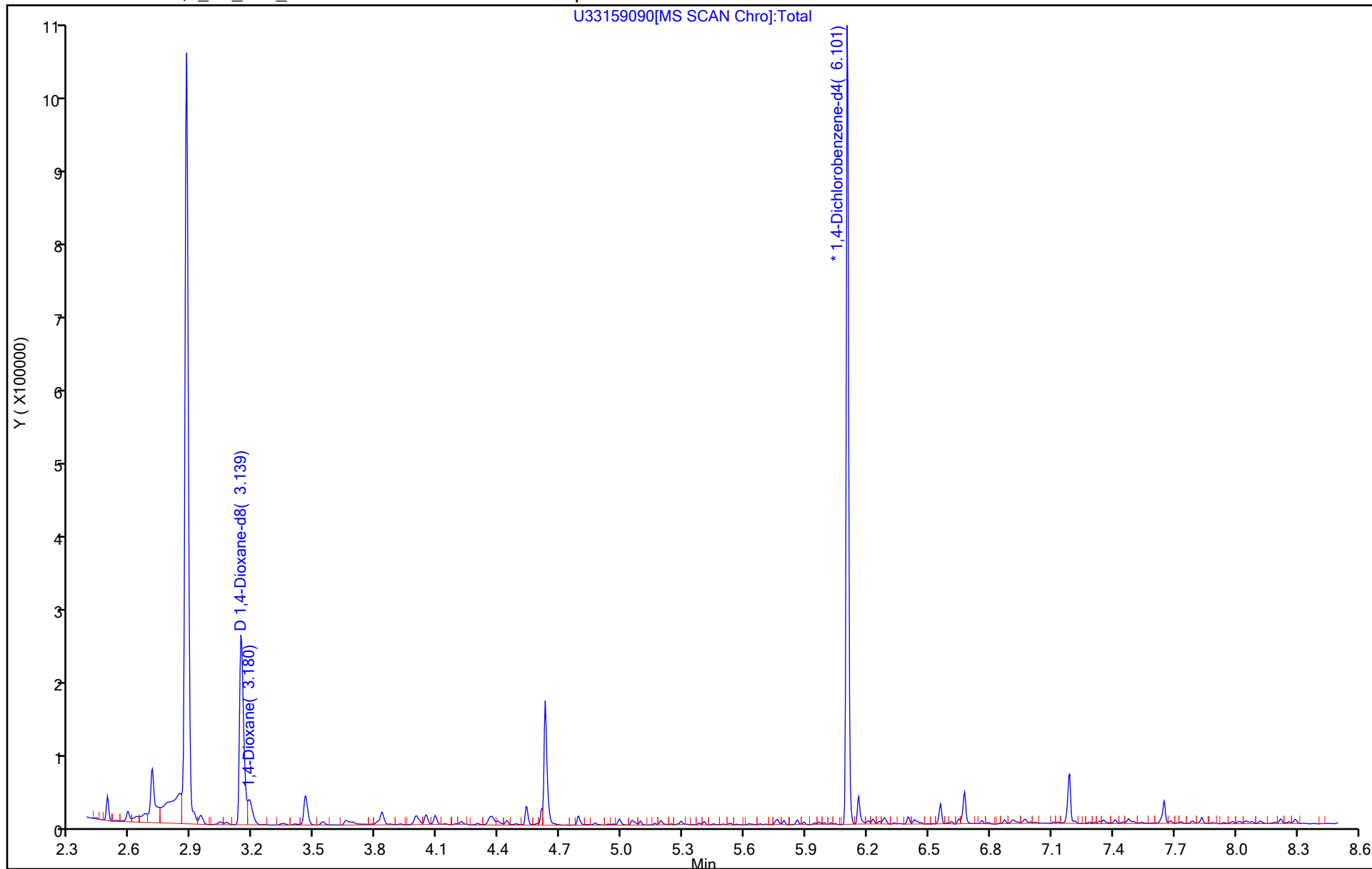
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 5

Method: 1,4_Dx_SIM_HP5973U

Limit Group: MB - 8270D SIM ID ICAL



GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, BuffaloJob No.: 480-176996-1

SDG No.: _____

Instrument ID: HP5973UStart Date: 10/22/2020 18:48Analysis Batch Number: 555321End Date: 10/23/2020 04:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 480-555321/2		10/22/2020 18:48	1	U33158827.D	RXI-5Sil MS(0.5 0.25 (mm))
IC 480-555321/3		10/22/2020 19:16	1	U33158828.D	RXI-5Sil MS(0.5 0.25 (mm))
IC 480-555321/4		10/22/2020 19:39	1	U33158829.D	RXI-5Sil MS(0.5 0.25 (mm))
ICIS 480-555321/5		10/22/2020 20:03	1	U33158830.D	RXI-5Sil MS(0.5 0.25 (mm))
IC 480-555321/6		10/22/2020 20:26	1	U33158831.D	RXI-5Sil MS(0.5 0.25 (mm))
IC 480-555321/7		10/22/2020 20:50	1	U33158832.D	RXI-5Sil MS(0.5 0.25 (mm))
IC 480-555321/8		10/22/2020 21:13	1	U33158833.D	RXI-5Sil MS(0.5 0.25 (mm))
ICV 480-555321/9		10/22/2020 21:36	1	U33158834.D	RXI-5Sil MS(0.5 0.25 (mm))
CCVIS 480-555321/10		10/22/2020 22:00	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/22/2020 22:23	10		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/22/2020 22:47	10		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/22/2020 23:10	5		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/22/2020 23:34	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/22/2020 23:57	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/23/2020 00:20	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/23/2020 00:44	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/23/2020 01:08	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/23/2020 01:31	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/23/2020 01:55	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/23/2020 02:19	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/23/2020 02:42	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/23/2020 03:06	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/23/2020 03:29	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/23/2020 03:53	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/23/2020 04:16	1		RXI-5Sil MS(0.5 0.25 (mm))

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Buffalo

Job No.: 480-176996-1

SDG No.:

Instrument ID: HP5973U

Start Date: 10/28/2020 12:42

Analysis Batch Number: 556213

End Date: 10/28/2020 23:49

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 480-556213/2		10/28/2020 12:42	1	U33159010.D	RXI-5Sil MS(0.5 0.25 (mm))
CCVIS 480-556213/3		10/28/2020 13:11	1	U33159011.D	RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/28/2020 13:35	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/28/2020 13:59	20		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/28/2020 14:23	100		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/28/2020 14:47	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/28/2020 15:12	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/28/2020 15:36	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/28/2020 15:59	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/28/2020 16:23	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/28/2020 16:47	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/28/2020 17:11	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/28/2020 17:34	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/28/2020 17:58	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/28/2020 18:21	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/28/2020 18:45	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/28/2020 19:08	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/28/2020 19:31	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/28/2020 19:55	1		RXI-5Sil MS(0.5 0.25 (mm))
MB 480-555696/1-A		10/28/2020 20:18	1	U33159029.D	RXI-5Sil MS(0.5 0.25 (mm))
LCS 480-555696/2-A		10/28/2020 20:41	1	U33159030.D	RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/28/2020 21:05	10		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/28/2020 21:28	10		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/28/2020 21:52	10		RXI-5Sil MS(0.5 0.25 (mm))
480-176996-1	EQUIP BLANK	10/28/2020 22:15	1	U33159034.D	RXI-5Sil MS(0.5 0.25 (mm))
480-176996-3	B1231-MW-03	10/28/2020 22:39	1	U33159035.D	RXI-5Sil MS(0.5 0.25 (mm))
480-176996-4	B1243-W05	10/28/2020 23:02	1	U33159036.D	RXI-5Sil MS(0.5 0.25 (mm))
480-176996-5	MW-1253 IR	10/28/2020 23:25	1	U33159037.D	RXI-5Sil MS(0.5 0.25 (mm))
480-176996-6	B1219-W06	10/28/2020 23:49	1	U33159038.D	RXI-5Sil MS(0.5 0.25 (mm))

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Buffalo

Job No.: 480-176996-1

SDG No.:

Instrument ID: HP5973U

Start Date: 10/29/2020 00:41

Analysis Batch Number: 556258

End Date: 10/29/2020 04:40

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 480-556258/2		10/29/2020 00:41	1	U33159040.D	RXI-5Sil MS(0.5 0.25 (mm))
CCVIS 480-556258/3		10/29/2020 01:09	1	U33159041.D	RXI-5Sil MS(0.5 0.25 (mm))
480-176996-7	B-54 B1266-W12	10/29/2020 01:32	1	U33159042.D	RXI-5Sil MS(0.5 0.25 (mm))
480-176996-8	TPW-14	10/29/2020 01:56	1	U33159043.D	RXI-5Sil MS(0.5 0.25 (mm))
480-176996-9	DUPLICATE	10/29/2020 02:19	1	U33159044.D	RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/29/2020 02:43	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/29/2020 03:06	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/29/2020 03:29	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/29/2020 03:53	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/29/2020 04:16	1		RXI-5Sil MS(0.5 0.25 (mm))
ZZZZZ		10/29/2020 04:40	1		RXI-5Sil MS(0.5 0.25 (mm))

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1

SDG No.: _____

Instrument ID: HP5973U Start Date: 10/30/2020 10:14Analysis Batch Number: 556636 End Date: 10/30/2020 11:52

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 480-556636/2		10/30/2020 10:14	1	U33159087.D	RXI-5Sil MS(0.5 0.25 (mm))
CCVIS 480-556636/3		10/30/2020 10:42	1	U33159088.D	RXI-5Sil MS(0.5 0.25 (mm))
480-176996-2 MS	TPW-33R MS	10/30/2020 11:05	1	U33159089.D	RXI-5Sil MS(0.5 0.25 (mm))
480-176996-2 MSD	TPW-33R MSD	10/30/2020 11:29	1	U33159090.D	RXI-5Sil MS(0.5 0.25 (mm))
480-176996-2	TPW-33R	10/30/2020 11:52	1	U33159091.D	RXI-5Sil MS(0.5 0.25 (mm))

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1

SDG No.: _____

Batch Number: 555696 Batch Start Date: 10/26/20 08:14 Batch Analyst: Pollock, Jacob MBatch Method: 3510C Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	OP_SIM LCS 00012	OP_SimSurr 00026
MB 480-555696/1		3510C, 8270D SIM ID		1000 mL	1 mL	7 SU	<2 SU		1 mL
LCS 480-555696/2		3510C, 8270D SIM ID		1000 mL	1 mL	7 SU	<2 SU	1 mL	1 mL
480-176996-A-2 MS	TPW-33R	3510C, 8270D SIM ID	T	1050 mL	1 mL	7 SU	<2 SU	1 mL	1 mL
480-176996-B-2 MSD	TPW-33R	3510C, 8270D SIM ID	T	1050 mL	1 mL	7 SU	<2 SU	1 mL	1 mL
480-176996-B-2	TPW-33R	3510C, 8270D SIM ID	T	1040 mL	1 mL	7 SU	<2 SU		1 mL
480-176996-A-1	EQUIP BLANK	3510C, 8270D SIM ID	T	1050 mL	1 mL	7 SU	<2 SU		1 mL
480-176996-B-3	B1231-MW-03	3510C, 8270D SIM ID	T	1050 mL	1 mL	7 SU	<2 SU		1 mL
480-176996-B-4	B1243-W05	3510C, 8270D SIM ID	T	980 mL	1 mL	7 SU	<2 SU		1 mL
480-176996-B-5	MW-1253 IR	3510C, 8270D SIM ID	T	1050 mL	1 mL	7 SU	<2 SU		1 mL
480-176996-B-6	B1219-W06	3510C, 8270D SIM ID	T	1050 mL	1 mL	7 SU	<2 SU		1 mL
480-176996-A-7	B-54 B1266-W12	3510C, 8270D SIM ID	T	1050 mL	1 mL	7 SU	<2 SU		1 mL
480-176996-B-8	TPW-14	3510C, 8270D SIM ID	T	1030 mL	1 mL	7 SU	<2 SU		1 mL
480-176996-B-9	DUPLICATE	3510C, 8270D SIM ID	T	1050 mL	1 mL	7 SU	<2 SU		1 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment					
MB 480-555696/1		3510C, 8270D SIM ID							
LCS 480-555696/2		3510C, 8270D SIM ID							
480-176996-A-2 MS	TPW-33R	3510C, 8270D SIM ID	T						
480-176996-B-2 MSD	TPW-33R	3510C, 8270D SIM ID	T						
480-176996-B-2	TPW-33R	3510C, 8270D SIM ID	T						
480-176996-A-1	EQUIP BLANK	3510C, 8270D SIM ID	T						

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.

8270D SIM ID

Page 1 of 2

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-176996-1

SDG No.: _____

Batch Number: 555696 Batch Start Date: 10/26/20 08:14 Batch Analyst: Pollock, Jacob MBatch Method: 3510C Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment					
480-176996-B-3	B1231-MW-03	3510C, 8270D SIM ID	T						
480-176996-B-4	B1243-W05	3510C, 8270D SIM ID	T	Contains some sediment					
480-176996-B-5	MW-1253 IR	3510C, 8270D SIM ID	T						
480-176996-B-6	B1219-W06	3510C, 8270D SIM ID	T						
480-176996-A-7	B-54 B1266-W12	3510C, 8270D SIM ID	T						
480-176996-B-8	TPW-14	3510C, 8270D SIM ID	T						
480-176996-B-9	DUPLICATE	3510C, 8270D SIM ID	T						

Batch Notes	
Acid Used for pH Adjustment ID	5836426
Analyst ID - Concentration	JP
Analyst ID - Extraction	JP
Method/Fraction	3510C/8270_SIM_MS_ID
Na2SO4 ID	6069462
Prep Solvent ID	6176752
Prep Solvent Volume Used	180 mL
Analyst ID - Spike Analyst	JP
Analyst ID - Spike Witness Analyst	JP
Sufficient Volume for Batch QC	Yes
Vial Lot Number	1709111094

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.

8270D SIM ID

Page 2 of 2

PFC_IDA

Fluorinated Alkyl Substances

FORM II
LCMS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1

SDG No.: _____

Matrix: Water Level: Low

GC Column (1): C-18 ID: 4.6 (mm)

Client Sample ID	Lab Sample ID	PFBA #	PFPeA #	C3PFBS #	PFHxA #	C4PFHA #	PFHxS #	M262FTS #	PFOA #
EQUIP BLANK	480-176996-1	111	112	101	108	108	103	101	94
TPW-33R	480-176996-2	84	96	93	104	99	98	102	94
B1231-MW-03	480-176996-3	68	85	92	92	99	97	107	97
B1243-W05	480-176996-4	91	99	93	97	101	96	100	89
MW-1253 IR	480-176996-5	96	102	96	100	102	102	109	95
B1219-W06	480-176996-6	95	102	96	105	102	100	107	93
B-54 B1266-W12	480-176996-7	97	101	98	104	107	99	101	93
TPW-14	480-176996-8	87	95	89	97	89	90	84	82
DUPLICATE	480-176996-9	70	87	89	92	95	102	108	91
	MB 200-160391/1-A	109	111	102	105	101	100	106	97
	LCS 200-160391/2-A	111	114	102	105	101	104	98	94
TPW-33R MS	480-176996-2 MS	88	103	101	121	94	102	101	92
TPW-33R MSD	480-176996-2 MSD	79	92	90	96	95	96	115	94

QC LIMITS

PFBA = 13C4 PFBA	25-150
PFPeA = 13C5 PFPeA	25-150
C3PFBS = 13C3 PFBS	50-150
PFHxA = 13C2 PFHxA	50-150
PFHxS = 18O2 PFHxS	50-150
C4PFHA = 13C4 PFHpA	50-150
M262FTS = M2-6:2 FTS	25-150
PFOA = 13C4 PFOA	50-150

Column to be used to flag recovery values

FORM II 537 (modified)

FORM II
LCMS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1

SDG No.: _____

Matrix: Water Level: Low

GC Column (1): C-18 ID: 4.6 (mm)

Client Sample ID	Lab Sample ID	PFOS #	PFNA #	PFDA #	M282FTS #	PFOSA #	d3NMFOS #	PFUnA #	d5NEFOS #
EQUIP BLANK	480-176996-1	99	97	91	103	59	87	88	93
TPW-33R	480-176996-2	101	93	84	95	84	75	82	82
B1231-MW-03	480-176996-3	100	97	89	95	89	81	90	88
B1243-W05	480-176996-4	71	77	55	58	64	47 *5	43 *5	41 *5
MW-1253 IR	480-176996-5	96	94	86	101	83	74	89	82
B1219-W06	480-176996-6	85	85	61	68	71	53	50	46 *5
B-54 B1266-W12	480-176996-7	77	82	58	66	71	55	55	52
TPW-14	480-176996-8	49 *5	61	34 *5	35	55	29 *5	25 *5	21 *5
DUPLICATE	480-176996-9	98	90	88	86	82	71	86	83
	MB 200-160391/1-A	107	97	92	110	69	84	92	92
	LCS 200-160391/2-A	105	90	89	104	47	84	91	82
TPW-33R MS	480-176996-2 MS	102	93	87	89	85	78	90	85
TPW-33R MSD	480-176996-2 MSD	89	97	85	109	84	71	82	74

QC LIMITS

PFOS = 13C4 PFOS	50-150
PFNA = 13C5 PFNA	50-150
PFDA = 13C2 PFDA	50-150
M282FTS = M2-8:2 FTS	25-150
PFOSA = 13C8 FOSA	25-150
d3NMFOS = d3-NMeFOSAA	50-150
PFUnA = 13C2 PFUnA	50-150
d5NEFOS = d5-NEtFOSAA	50-150

Column to be used to flag recovery values

FORM II 537 (modified)

FORM II
LCMS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1

SDG No.: _____

Matrix: Water Level: Low

GC Column (1): C-18 ID: 4.6 (mm)

Client Sample ID	Lab Sample ID	PFD _o A #	PFTDA #
EQUIP BLANK	480-176996-1	77	70
TPW-33R	480-176996-2	69	71
B1231-MW-03	480-176996-3	77	77
B1243-W05	480-176996-4	37 *5	40 *5
MW-1253 IR	480-176996-5	61	59
B1219-W06	480-176996-6	38 *5	41 *5
B-54 B1266-W12	480-176996-7	43 *5	45 *5
TPW-14	480-176996-8	19 *5	21 *5
DUPLICATE	480-176996-9	68	72
	MB 200-160391/1-A	83	82
	LCS 200-160391/2-A	72	74
TPW-33R MS	480-176996-2 MS	75	73
TPW-33R MSD	480-176996-2 MSD	64	61

PFD_oA = 13C2 PFD_oA
PFTDA = 13C2 PFTeDA

QC LIMITS
50-150
50-150

Column to be used to flag recovery values

FORM II 537 (modified)

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: PA201027A08.d
 Lab ID: LCS 200-160391/2-A Client ID: _____

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC	QC LIMITS REC	#
Perfluorobutanoic acid (PFBA)	40.0	33.0	83	50-150	
Perfluoropentanoic acid (PFPeA)	40.0	32.4	81	50-150	
Perfluorohexanoic acid (PFHxA)	40.0	34.9	87	70-130	
Perfluoroheptanoic acid (PFHpA)	40.0	34.5	86	70-130	
Perfluorooctanoic acid (PFOA)	40.0	34.5	86	70-130	
Perfluorononanoic acid (PFNA)	40.0	36.2	91	70-130	
Perfluorodecanoic acid (PFDA)	40.0	35.1	88	70-130	
Perfluoroundecanoic acid (PFUnA)	40.0	32.6	81	70-130	
Perfluorododecanoic acid (PFDoA)	40.0	37.0	93	70-130	
Perfluorotridecanoic acid (PFTriA)	40.0	35.0	87	70-130	
Perfluorotetradecanoic acid (PFTeA)	40.0	39.6	99	70-130	
Perfluorobutanesulfonic acid (PFBS)	35.4	32.0	91	70-130	
Perfluorohexanesulfonic acid (PFHxS)	36.4	30.4	83	70-130	
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	33.4	88	50-150	
Perfluorooctanesulfonic acid (PFOS)	37.1	30.0	81	70-130	
Perfluorodecanesulfonic acid (PFDS)	38.6	31.1	81	50-150	
Perfluorooctanesulfonamide (PFOSA)	40.0	50.6	127	50-150	
N-methylperfluorooctanesulfona midoacetic acid (NMeFOSAA)	40.0	32.2	81	70-130	
N-ethylperfluorooctanesulfonam idoacetic acid (NEtFOSAA)	40.0	34.3	86	70-130	
1H,1H,2H,2H-perfluorooctanesul fonic acid (6:2)	37.9	32.0	84	50-150	
1H,1H,2H,2H-perfluorodecanesul fonic acid (8:2)	38.3	32.3	84	50-150	
18O2 PFHxS	47.3	49.3	104	50-150	
13C4 PFHpA	50.0	50.7	101	50-150	
13C4 PFOA	50.0	47.1	94	50-150	
13C4 PFOS	47.8	50.0	105	50-150	
13C5 PFNA	50.0	45.2	90	50-150	
13C4 PFBA	50.0	55.5	111	25-150	
13C2 PFHxA	50.0	52.4	105	50-150	
13C2 PFDA	50.0	44.4	89	50-150	
13C2 PFUnA	50.0	45.3	91	50-150	

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, Burlington Job No.: 480-176996-1

SDG No.: _____

Matrix: Water Level: Low Lab File ID: PA201027A08.d

Lab ID: LCS 200-160391/2-A Client ID: _____

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC	QC LIMITS REC	#
13C2 PFDoA	50.0	35.8	72	50-150	
13C8 FOSA	50.0	23.5	47	25-150	
13C5 PFPeA	50.0	56.9	114	25-150	
13C2 PFTeDA	50.0	37.1	74	50-150	
d3-NMeFOSAA	50.0	42.2	84	50-150	
d5-NEtFOSAA	50.0	41.1	82	50-150	
M2-6:2 FTS	47.5	46.5	98	25-150	
M2-8:2 FTS	47.9	49.7	104	25-150	
13C3 PFBS	46.5	47.6	102	50-150	

Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: PA201027A19.d
 Lab ID: 480-176996-2 MS Client ID: TPW-33R MS

COMPOUND	SPIKE ADDED (ng/L)	SAMPLE CONCENTRATION (ng/L)	MS CONCENTRATION (ng/L)	MS % REC	QC LIMITS REC	#
Perfluorobutanoic acid (PFBA)	34.8	1.8 J	30.3	82	40-160	
Perfluoropentanoic acid (PFPeA)	34.8	ND	27.5	79	40-160	
Perfluorohexanoic acid (PFHxA)	34.8	0.75 J	31.3	88	40-160	
Perfluoroheptanoic acid (PFHpA)	34.8	0.50 J	31.6	89	40-160	
Perfluorooctanoic acid (PFOA)	34.8	1.3 J	32.3	89	40-160	
Perfluorononanoic acid (PFNA)	34.8	ND	31.3	90	40-160	
Perfluorodecanoic acid (PFDA)	34.8	ND	29.2	84	40-160	
Perfluoroundecanoic acid (PFUnA)	34.8	ND	28.1	81	40-160	
Perfluorododecanoic acid (PFDoA)	34.8	ND	31.9	92	40-160	
Perfluorotridecanoic acid (PFTriA)	34.8	ND	31.2	89	40-160	
Perfluorotetradecanoic acid (PFTeA)	34.8	ND	32.6	94	40-160	
Perfluorobutanesulfonic acid (PFBS)	30.8	0.71 J	28.5	90	40-160	
Perfluorohexanesulfonic acid (PFHxS)	31.7	3.8	29.7	82	40-160	
Perfluoroheptanesulfonic Acid (PFHpS)	33.1	ND	29.4	89	40-160	
Perfluorooctanesulfonic acid (PFOS)	32.3	6.0	31.3	78	40-160	
Perfluorodecanesulfonic acid (PFDS)	33.6	ND	30.3	90	40-160	
Perfluorooctanesulfonamide (PFOSA)	34.8	ND	34.1	98	40-160	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	34.8	ND	30.8	88	40-160	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	34.8	ND	29.3	84	40-160	
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	33.0	ND	28.1	85	40-160	
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	33.4	ND	29.5	88	40-160	
18O2 PFHxS	41.2	40	42.0	102	50-150	
13C4 PFHpA	43.5	42	40.9	94	50-150	
13C4 PFOA	43.5	40	40.2	92	50-150	
13C4 PFOS	41.6	41	42.2	102	50-150	
13C5 PFNA	43.5	40	40.4	93	50-150	
13C4 PFBA	43.5	36	38.4	88	25-150	
13C2 PFHxA	43.5	44	52.5	121	50-150	
13C2 PFDA	43.5	36	37.7	87	50-150	
13C2 PFUnA	43.5	35	39.3	90	50-150	

Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: PA201027A19.d
 Lab ID: 480-176996-2 MS Client ID: TPW-33R MS

COMPOUND	SPIKE ADDED (ng/L)	SAMPLE CONCENTRATION (ng/L)	MS CONCENTRATION (ng/L)	MS % REC	QC LIMITS REC	#
13C2 PFDoA	43.5	29	32.6	75	50-150	
13C8 FOSA	43.5	36	37.1	85	25-150	
13C5 PFPeA	43.5	41	44.8	103	25-150	
13C2 PFTeDA	43.5	30	31.7	73	50-150	
d3-NMeFOSAA	43.5	32	34.1	78	50-150	
d5-NEtFOSAA	43.5	35	37.1	85	50-150	
M2-6:2 FTS	41.3	41	41.8	101	25-150	
M2-8:2 FTS	41.7	39	37.1	89	25-150	
13C3 PFBS	40.5	37	40.9	101	50-150	

Column to be used to flag recovery and RPD values
 FORM III 537 (modified)

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
SDG No.: _____
Matrix: Water Level: Low Lab File ID: PA201027A20.d
Lab ID: 480-176996-2 MSD Client ID: TPW-33R MSD

COMPOUND	SPIKE ADDED (ng/L)	MSD CONCENTRATION (ng/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Perfluorobutanoic acid (PFBA)	35.5	30.4	81	0	30	40-160	
Perfluoropentanoic acid (PFPeA)	35.5	29.4	83	7	30	40-160	
Perfluorohexanoic acid (PFHxA)	35.5	31.1	85	1	20	40-160	
Perfluoroheptanoic acid (PFHpA)	35.5	32.8	91	4	20	40-160	
Perfluorooctanoic acid (PFOA)	35.5	32.6	88	1	20	40-160	
Perfluorononanoic acid (PFNA)	35.5	29.6	83	6	20	40-160	
Perfluorodecanoic acid (PFDA)	35.5	30.3	85	3	20	40-160	
Perfluoroundecanoic acid (PFUnA)	35.5	29.4	83	4	20	40-160	
Perfluorododecanoic acid (PFDoA)	35.5	33.0	93	4	20	40-160	
Perfluorotridecanoic acid (PFTriA)	35.5	32.2	91	3	20	40-160	
Perfluorotetradecanoic acid (PFTeA)	35.5	35.2	99	8	20	40-160	
Perfluorobutanesulfonic acid (PFBS)	31.4	27.8	86	2	20	40-160	
Perfluorohexanesulfonic acid (PFHxS)	32.3	29.5	80	0	20	40-160	
Perfluoroheptanesulfonic Acid (PFHpS)	33.8	31.8	94	8	30	40-160	
Perfluorooctanesulfonic acid (PFOS)	33.0	34.8	87	10	20	40-160	
Perfluorodecanesulfonic acid (PFDS)	34.2	28.4	83	6	30	40-160	
Perfluorooctanesulfonamide (PFOSA)	35.5	32.0	90	6	30	40-160	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	35.5	30.2	85	2	20	40-160	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	35.5	28.9	81	1	20	40-160	
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	33.7	28.4	84	1	30	40-160	
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	34.0	29.2	86	1	30	40-160	
18O2 PFHxS	42.0	40.5	96			50-150	
13C4 PFHpA	44.4	42.1	95			50-150	
13C4 PFOA	44.4	41.7	94			50-150	
13C4 PFOS	42.4	37.9	89			50-150	
13C5 PFNA	44.4	42.9	97			50-150	
13C4 PFBA	44.4	35.2	79			25-150	
13C2 PFHxA	44.4	42.8	96			50-150	
13C2 PFDA	44.4	37.6	85			50-150	
13C2 PFUnA	44.4	36.6	82			50-150	

Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: PA201027A20.d
 Lab ID: 480-176996-2 MSD Client ID: TPW-33R MSD

COMPOUND	SPIKE ADDED (ng/L)	MSD CONCENTRATION (ng/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
13C2 PFDoA	44.4	28.6	64			50-150	
13C8 FOSA	44.4	37.3	84			25-150	
13C5 PFPeA	44.4	40.7	92			25-150	
13C2 PFTeDA	44.4	27.2	61			50-150	
d3-NMeFOSAA	44.4	31.7	71			50-150	
d5-NEtFOSAA	44.4	32.9	74			50-150	
M2-6:2 FTS	42.2	48.5	115			25-150	
M2-8:2 FTS	42.5	46.5	109			25-150	
13C3 PFBS	41.3	37.3	90			50-150	

Column to be used to flag recovery and RPD values
 FORM III 537 (modified)

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Lab File ID: PA201027A07.d Lab Sample ID: MB 200-160391/1-A
 Matrix: Water Date Extracted: 10/27/2020 09:15
 Instrument ID: LC812 Date Analyzed: 10/27/2020 17:38
 Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-160391/2-A	PA201027A08 .d	10/27/2020 17:47
EQUIP BLANK	480-176996-1	PA201027A17 .d	10/27/2020 19:17
TPW-33R	480-176996-2	PA201027A18 .d	10/27/2020 19:25
TPW-33R MS	480-176996-2 MS	PA201027A19 .d	10/27/2020 19:34
TPW-33R MSD	480-176996-2 MSD	PA201027A20 .d	10/27/2020 19:42
B1231-MW-03	480-176996-3	PA201027A22 .d	10/27/2020 19:58
B1243-W05	480-176996-4	PA201027A23 .d	10/27/2020 20:07
MW-1253 IR	480-176996-5	PA201027A24 .d	10/27/2020 20:15
B1219-W06	480-176996-6	PA201027A25 .d	10/27/2020 20:23
B-54 B1266-W12	480-176996-7	PA201027A26 .d	10/27/2020 20:32
TPW-14	480-176996-8	PA201027A27 .d	10/27/2020 20:40
DUPLICATE	480-176996-9	PA201027A28 .d	10/27/2020 20:48

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Sample No.: ICIS 200-159115/8 Date Analyzed: 09/22/2020 19:55
 Instrument ID: LC812 GC Column: C-18 ID: 4.6 (mm)
 Lab File ID (Standard): PA200922ICAL08.d Heated Purge: (Y/N) N
 Calibration ID: 44168

	13PFOA					
	AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MID-POINT	704481	3.46				
UPPER LIMIT	1056722	3.66				
LOWER LIMIT	352241	3.26				
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICB 200-159115/11		946396	3.47			
ICV 200-159115/12		991256	3.47			
CCVL 200-160481/5		593273	3.46			
CCVIS 200-160481/6		532190	3.45			

13PFOA = 13C2 PFOA

Area Limit = 50%-150% of internal standard area
 RT Limit = $\pm$ 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, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Sample No.: CCVIS 200-160481/6 Date Analyzed: 10/27/2020 17:30
 Instrument ID: LC812 GC Column: C-18 ID: 4.6 (mm)
 Lab File ID (Standard): PA201027A06.d Heated Purge: (Y/N) N
 Calibration ID: 44168

		13PFOA					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		532190	3.45				
UPPER LIMIT		798285	3.65				
LOWER LIMIT		266095	3.25				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 200-160391/1-A		579516	3.45				
LCS 200-160391/2-A		622217	3.45				
480-176996-1	EQUIP BLANK	670262	3.44				
480-176996-2	TPW-33R	664328	3.44				
480-176996-2 MS	TPW-33R MS	667384	3.21*3				
480-176996-2 MSD	TPW-33R MSD	809141*3	3.44				
CCV 200-160481/21		563333	3.45				
480-176996-3	B1231-MW-03	822885*3	3.44				
480-176996-4	B1243-W05	645641	3.44				
480-176996-5	MW-1253 IR	675943	3.45				
480-176996-6	B1219-W06	601202	3.45				
480-176996-7	B-54 B1266-W12	603015	3.44				
480-176996-8	TPW-14	620935	3.44				
480-176996-9	DUPLICATE	667419	3.45				
CCV 200-160481/31		488384	3.45				

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, Burlington Job No.: 480-176996-1

SDG No.: _____

Client Sample ID: EQUIP BLANK Lab Sample ID: 480-176996-1

Matrix: Water Lab File ID: PA201027A17.d

Analysis Method: 537 (modified) Date Collected: 10/21/2020 07:45

Extraction Method: 3535 Date Extracted: 10/27/2020 09:15

Sample wt/vol: 283 (mL) Date Analyzed: 10/27/2020 19:17

Con. Extract Vol.: 10 (mL) Dilution Factor: 1

Injection Volume: 20 (uL) GC Column: C-18 ID: 4.6 (mm)

% Moisture: _____ GPC Cleanup: (Y/N) N

Analysis Batch No.: 160481 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.4	1.0
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		1.8	0.95
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		1.8	0.73
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.8	0.41
335-67-1	Perfluorooctanoic acid (PFOA)	ND		1.8	0.87
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.8	0.51
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.8	0.41
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.64
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.8	0.41
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.8	0.38
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.8	0.52
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.8	0.56
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	0.59
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	0.34
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.8	0.77
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.42
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND		1.8	0.50
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4	0.70
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4	0.82
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.4	0.64
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.8	0.58

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Client Sample ID: EQUIP BLANK Lab Sample ID: 480-176996-1
 Matrix: Water Lab File ID: PA201027A17.d
 Analysis Method: 537 (modified) Date Collected: 10/21/2020 07:45
 Extraction Method: 3535 Date Extracted: 10/27/2020 09:15
 Sample wt/vol: 283 (mL) Date Analyzed: 10/27/2020 19:17
 Con. Extract Vol.: 10 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: C-18 ID: 4.6 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 160481 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	103		50-150
STL01892	13C4 PFHpA	108		50-150
STL00990	13C4 PFOA	94		50-150
STL00991	13C4 PFOS	99		50-150
STL00995	13C5 PFNA	97		50-150
STL00992	13C4 PFBA	111		25-150
STL00993	13C2 PFHxA	108		50-150
STL00996	13C2 PFDA	91		50-150
STL00997	13C2 PFUnA	88		50-150
STL00998	13C2 PFDoA	77		50-150
STL01056	13C8 FOSA	59		25-150
STL01893	13C5 PFPeA	112		25-150
STL02116	13C2 PFTeDA	70		50-150
STL02118	d3-NMeFOSAA	87		50-150
STL02117	d5-NEtFOSAA	93		50-150
STL02279	M2-6:2 FTS	101		25-150
STL02280	M2-8:2 FTS	103		25-150
STL02337	13C3 PFBS	101		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d
 Lims ID: 480-176996-C-1-A
 Client ID: EQUIP BLANK
 Sample Type: Client
 Inject. Date: 27-Oct-2020 19:17:30 ALS Bottle#: 14 Worklist Smp#: 17
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: 480-176996-C-1-A
 Misc. Info.: 200-0043412-017 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Method: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 28-Oct-2020 13:19:14 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1652

First Level Reviewer: khanphomeea

Date: 28-Oct-2020 09:09:55

Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.972	1.981	-0.009	0.573	1065067	1.39		111	14890	
2 Perfluorobutanoic acid										M
212.90 > 169.00	1.981	1.990	-0.009	1.005	6245	0.007841			2.1	M
D 3 13C5 PFPeA										
267.90 > 223.00	2.312	2.326	-0.014	0.672	769301	1.40		112	4438	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.312	2.326	-0.014	1.000	4202	0.006465			0.2	M
D 47 13C3 PFBS										M
301.90 > 80.00	2.339	2.339	0.0	0.680	788727	1.18		101	292794	M
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.339	2.353	-0.014	1.000	5820	0.008609	Target=2.07		19.9	
298.90 > 99.00	2.339	2.353	-0.014	1.000	2904		2.00(1.04-3.11)		5.6	
D 7 13C2 PFHxA										
315.00 > 270.00	2.691	2.703	-0.012	0.782	762903	1.35		108	4361	
D 11 18O2 PFHxS										
403.00 > 84.00	3.073	3.084	-0.011	0.893	584880	1.22		103	2124	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.073	3.084	-0.011	1.000	2228	0.004079	Target=4.60		8.4	M
399.00 > 99.00	3.073	3.084	-0.011	1.000	968		2.30(2.30-6.91)		2.0	M
D 9 13C4 PFHpA										
367.00 > 322.00	3.073	3.084	-0.011	0.893	696857	1.35		108	4463	
10 Perfluoroheptanoic acid										M
363.00 > 319.00	3.073	3.084	-0.011	1.000	2010	0.003598	Target=3.34		0.7	M
363.00 > 169.00	3.084	3.084	0.0	1.004	518		3.88(1.67-5.01)		2.2	M
16 Perfluoroheptanesulfonic acid										RM
449.00 > 80.00	3.432	3.441	-0.009	0.914	516	0.001146	Target=7.08		4.6	RM
449.00 > 99.00	3.415	3.441	-0.026	0.910	159		3.25(3.54-10.63)		2.3	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2 FTS										
429.00 > 81.00	3.432	3.441	-0.009	0.997	77382	1.20		101	434	
13 1H,1H,2H,2H-perfluorooctanesulfo										M
427.00 > 407.00	3.432	3.441	-0.009	1.000	332	0.006384			13.6	M
D 14 13C4 PFOA										
417.00 > 372.00	3.441	3.450	-0.009	1.000	619394	1.17		93.9	5091	
* 62 13C2 PFOA										
415.00 > 370.00	3.441	3.450	-0.009		670262	1.25			4876	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.441	3.458	-0.017	1.000	2922	0.005712	Target=2.29		2.2	M
413.00 > 169.00	3.441	3.458	-0.017	1.000	1374		2.13(1.14-3.43)		5.1	M
D 18 13C4 PFOS										
503.00 > 80.00	3.754	3.765	-0.011	1.091	464462	1.18		98.7	2287	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.754	3.765	-0.011	1.000	1952	0.004622	Target=7.10		2.2	M
499.00 > 99.00	3.754	3.765	-0.011	1.000	409		4.77(3.55-10.64)		1.9	M
D 19 13C5 PFNA										
468.00 > 423.00	3.775	3.786	-0.011	1.097	538505	1.21		96.8	5334	
D 23 13C2 PFDA										
515.00 > 470.00	4.071	4.082	-0.011	1.183	485792	1.14		91.1	5129	
24 Perfluorodecanoic acid										M
513.00 > 469.00	4.061	4.082	-0.021	0.998	692	0.001800	Target=6.81		2.0	M
513.00 > 169.00	4.091	4.082	0.009	1.005	202		3.43(3.41-10.22)		2.8	M
D 26 M2-8:2 FTS										
529.00 > 81.00	4.081	4.092	-0.011	1.186	93651	1.24		103	365	
D 21 13C8 FOSA										
506.00 > 78.00	4.138	4.139	-0.001	1.203	503621	0.7326		58.6	3428	
22 Perfluorooctanesulfonamide										M
498.00 > 78.00	4.150	4.139	0.011	1.003	897	0.002382			4.8	M
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.214	4.214	0.0	1.225	26499	1.09		87.3	807	
28 N-methylperfluorooctanesulfonami										M
570.00 > 419.00	4.214	4.224	-0.010	1.000	40	0.001999			1.2	M
29 Perfluorodecanesulfonic acid										RM
599.00 > 80.00	4.298	4.309	-0.011	1.145	438	0.001568	Target=3.31		4.2	RM
599.00 > 99.00	4.310	4.309	0.001	1.148	380		1.15(1.66-4.97)		3.7	M
D 30 13C2 PFUnA										
565.00 > 520.00	4.332	4.343	-0.011	1.259	352939	1.10		87.7	2683	
31 Perfluoroundecanoic acid										M
563.00 > 519.00	4.332	4.343	-0.011	1.000	459	0.001648	Target=6.57		1.2	M
563.00 > 169.00	4.332	4.343	-0.011	1.000	79		5.81(3.28-9.85)		1.4	M
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.344	4.343	0.001	1.262	30317	1.16		92.9	794	
33 N-ethylperfluorooctanesulfonamid										M
584.00 > 419.00	4.344	4.355	-0.011	1.000	41	0.001846			1.9	M
D 36 13C2 PFDaA										
615.00 > 570.00	4.561	4.561	0.0	1.326	329481	0.9680		77.4	6216	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
37 Perfluorododecanoic acid										RM
613.00 > 569.00	4.573	4.561	0.012	1.003	965	0.003754	Target=5.16		2.0	RM
613.00 > 169.00	4.573	4.561	0.012	1.003	101		9.55(2.58-7.75)		2.4	M
D 43 13C2 PFTeDA										
715.00 > 670.00	4.959	4.969	-0.010	1.441	211716	0.8732		69.9	5092	
42 Perfluorotetradecanoic acid										M
713.00 > 169.00	4.978	4.969	0.009	1.004	120	0.003093	Target=1.06		4.0	M
713.00 > 219.00	4.940	4.969	-0.029	0.996	83		1.45(0.53-1.59)		4.3	M

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d

Injection Date: 27-Oct-2020 19:17:30

Instrument ID: LC812

Lims ID: 480-176996-C-1-A

Lab Sample ID: 200-176996-1

Client ID: EQUIP BLANK

Operator ID: lc812tech

ALS Bottle#: 14

Worklist Smp#: 17

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

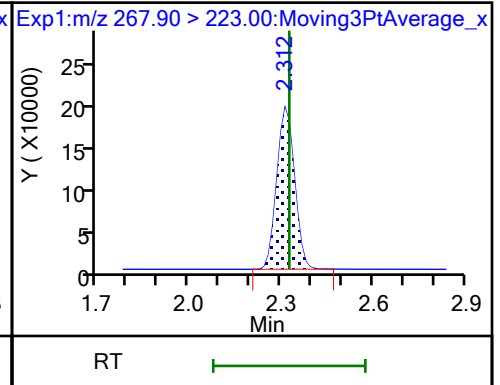
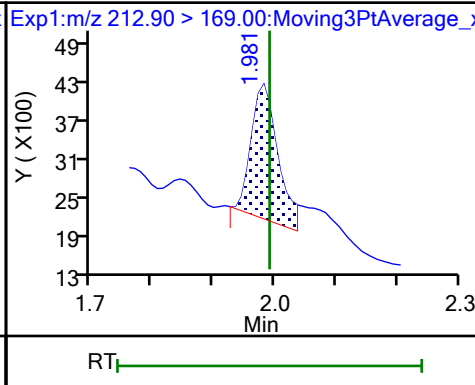
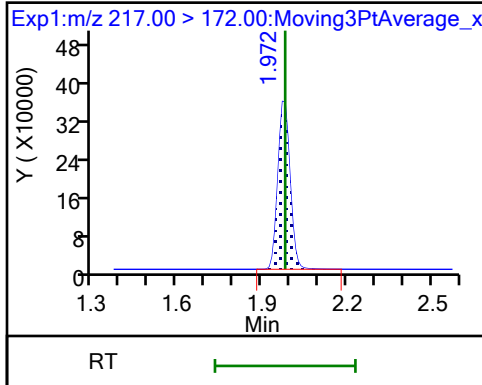
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid (M)

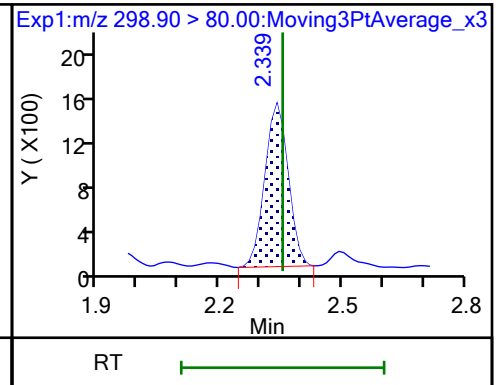
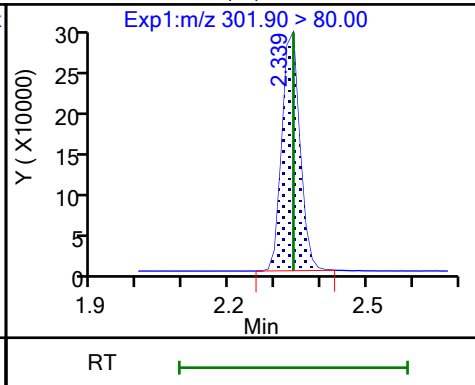
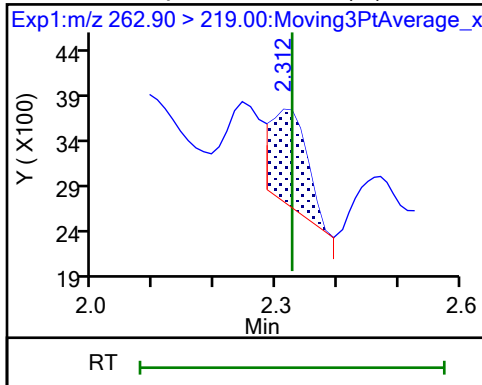
D 3 13C5 PFPeA



4 Perfluoropentanoic acid (M)

D 47 13C3 PFBS (M)

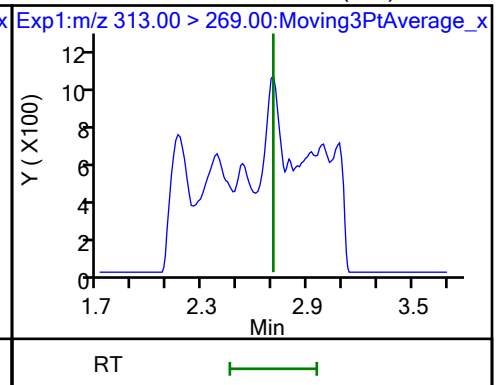
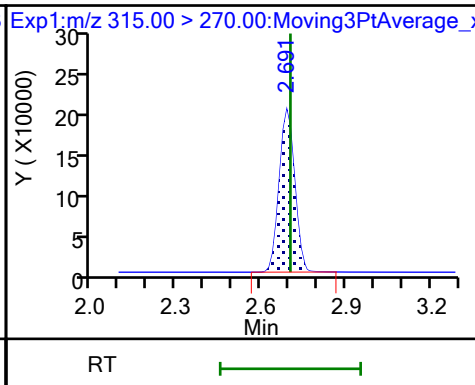
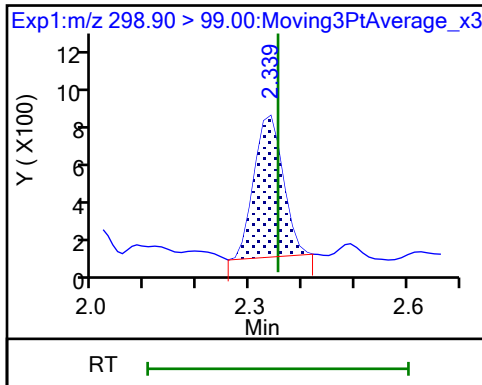
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

D 7 13C2 PFHxA

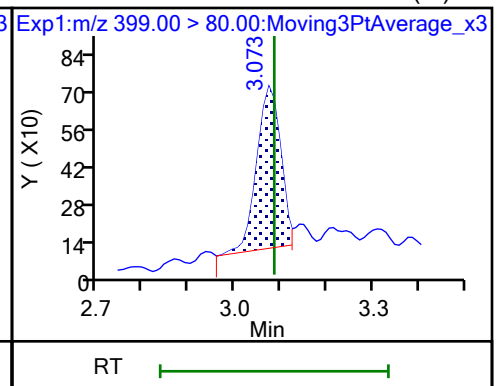
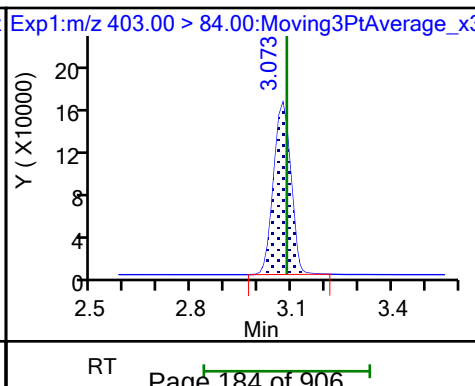
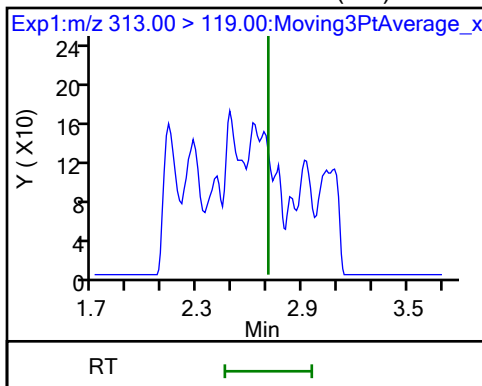
6 Perfluorohexanoic acid (ND)

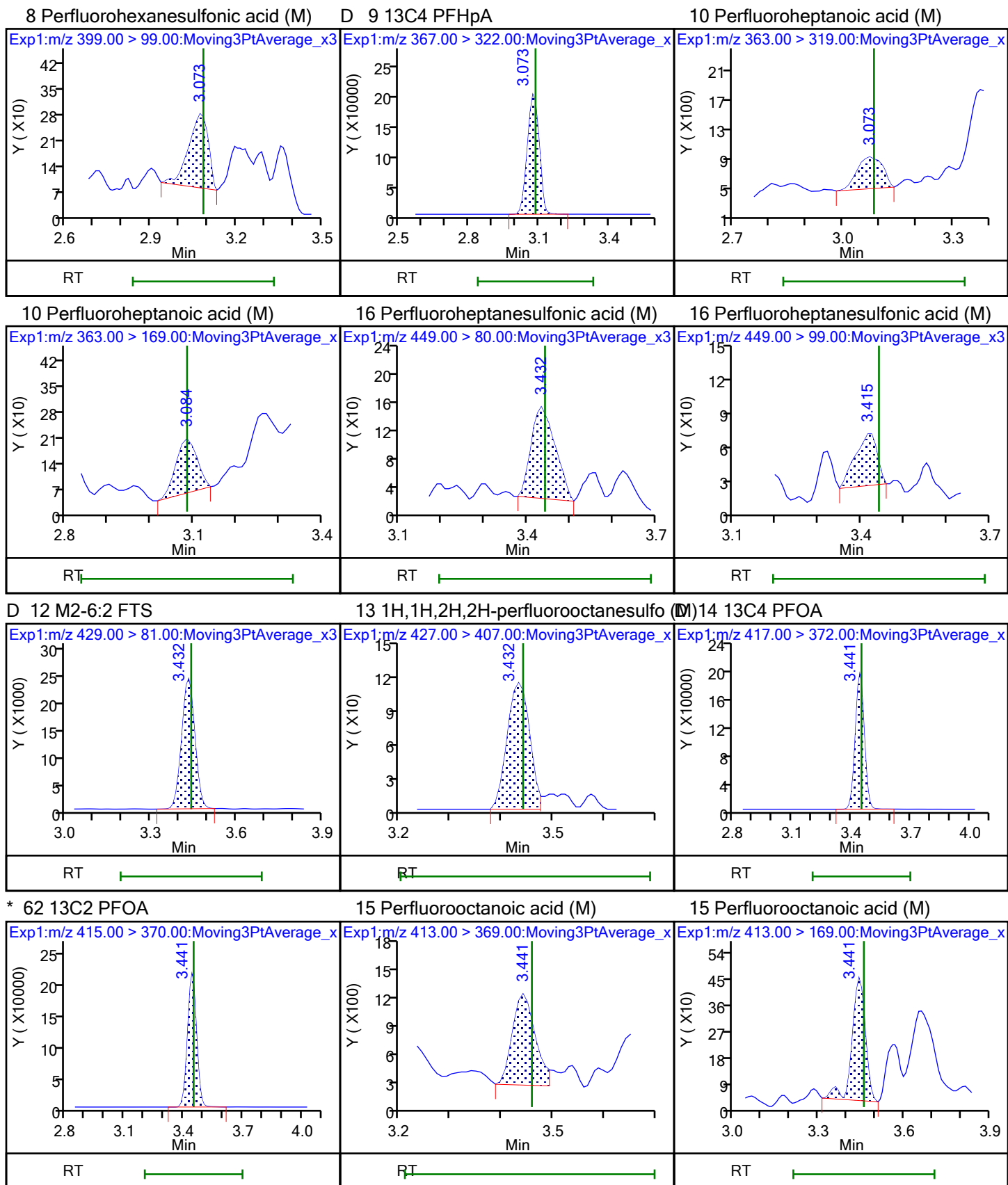


6 Perfluorohexanoic acid (ND)

D 11 18O2 PFHxS

8 Perfluorohexanesulfonic acid (M)

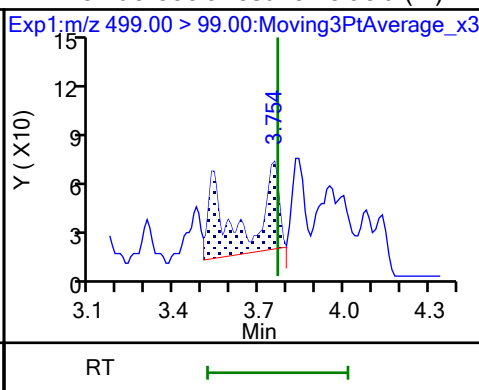
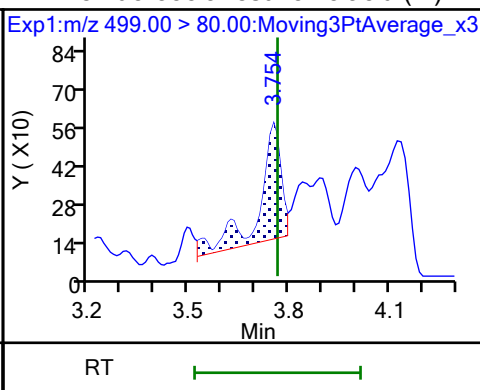
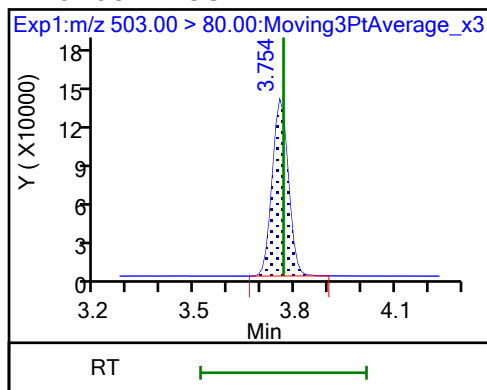




D 18 13C4 PFOS

17 Perfluorooctanesulfonic acid (M)

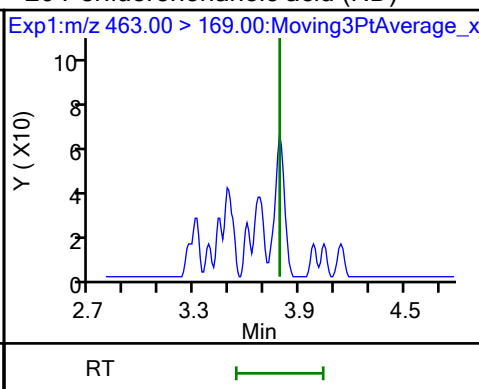
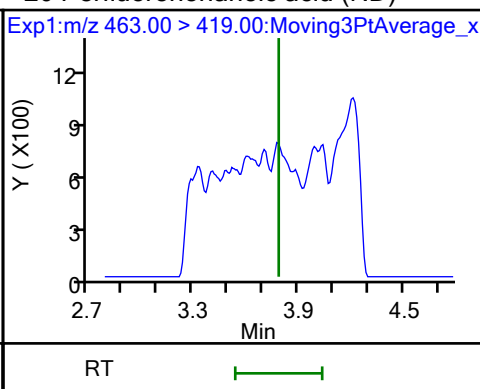
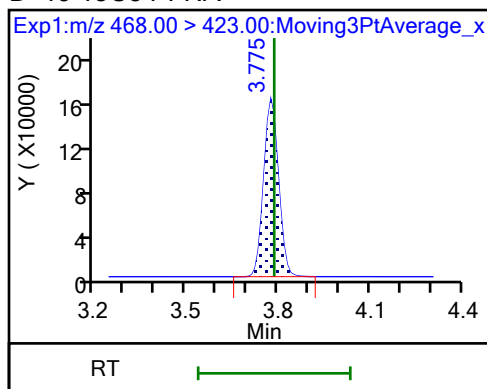
17 Perfluorooctanesulfonic acid (M)



D 19 13C5 PFNA

20 Perfluorononanoic acid (ND)

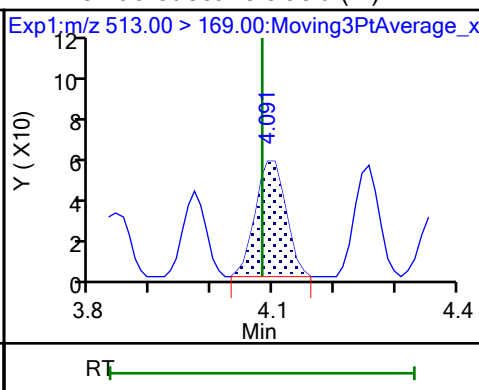
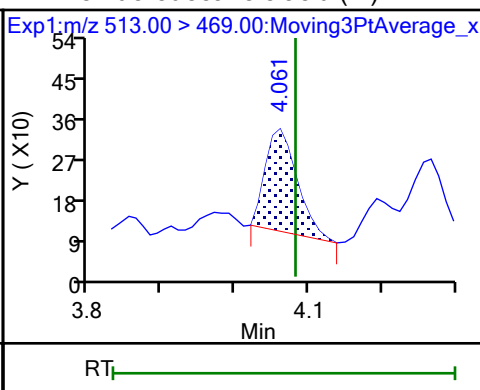
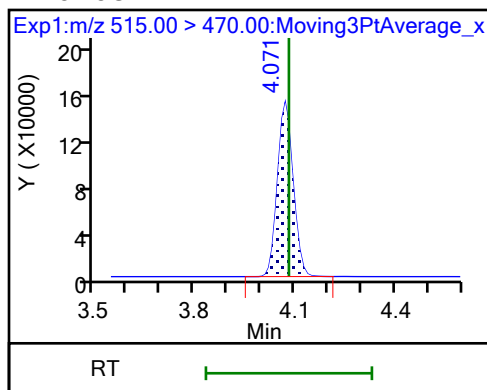
20 Perfluorononanoic acid (ND)



D 23 13C2 PFDA

24 Perfluorodecanoic acid (M)

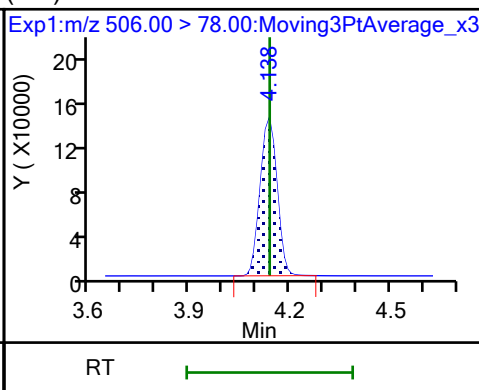
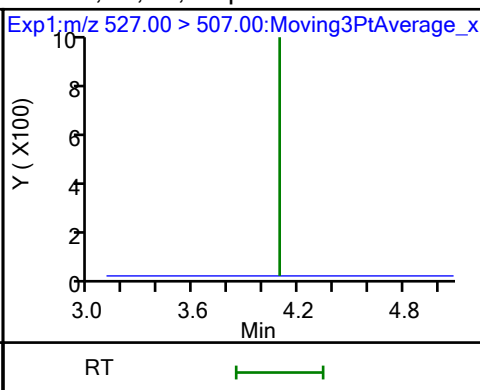
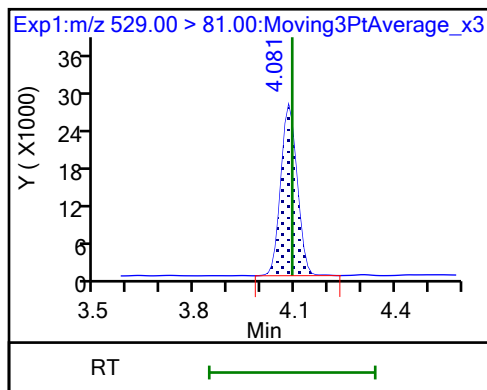
24 Perfluorodecanoic acid (M)

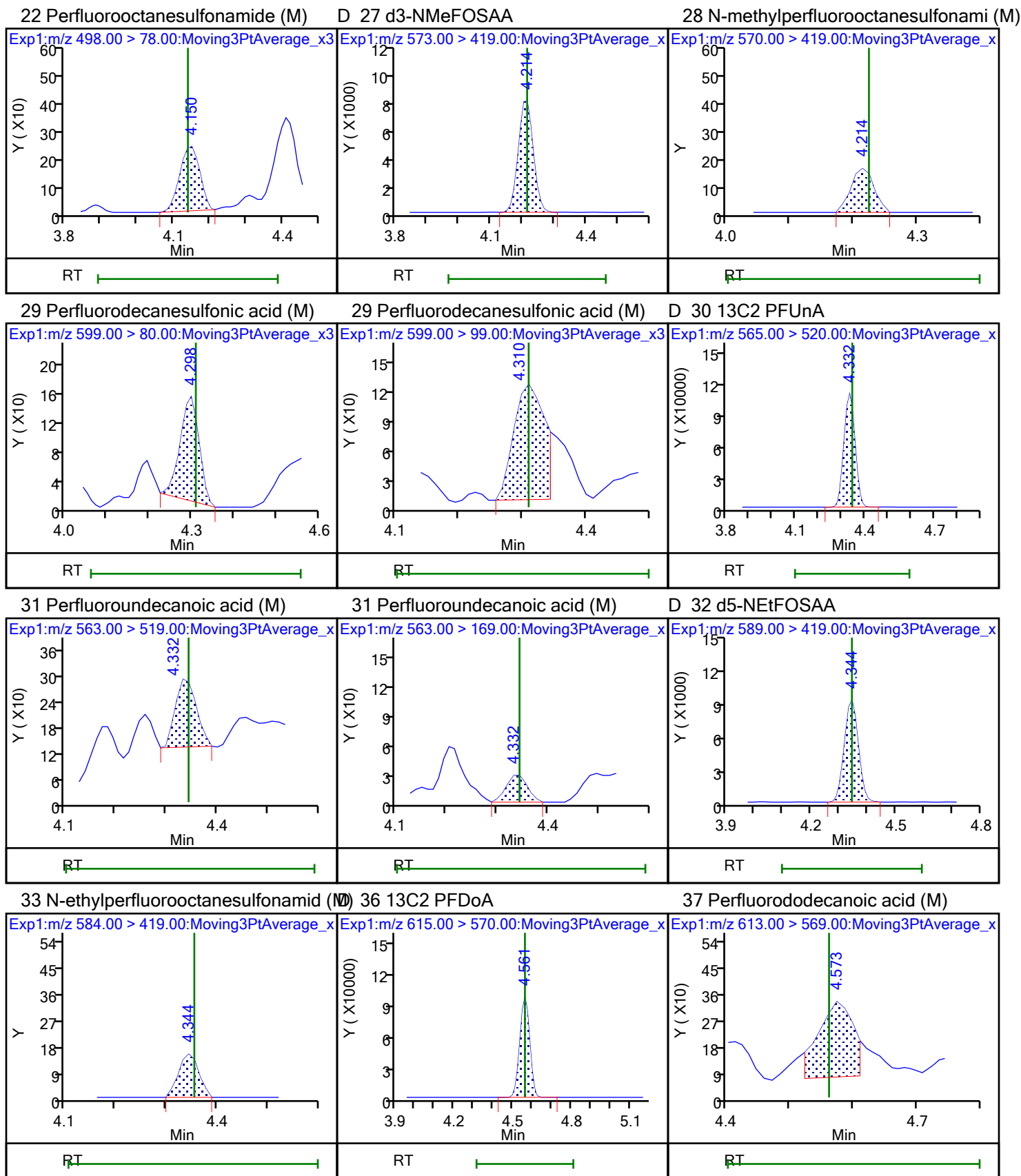


D 26 M2-8:2 FTS

25 1H,1H,2H,2H-perfluorodecanesulfonic acid (ND)

13C8 FOSA





37 Perfluorododecanoic acid (M)

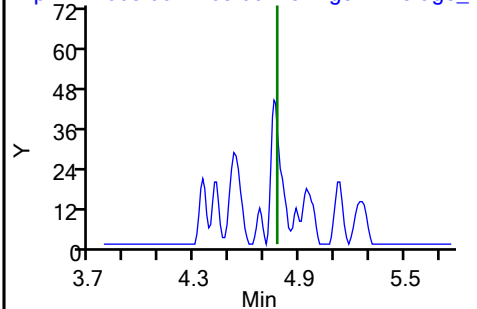
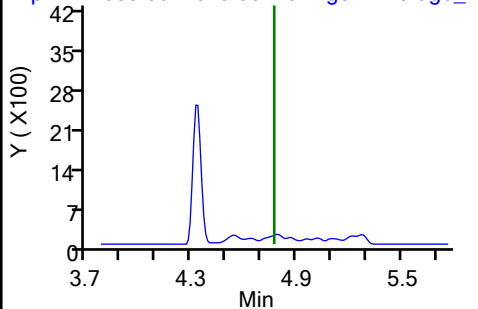
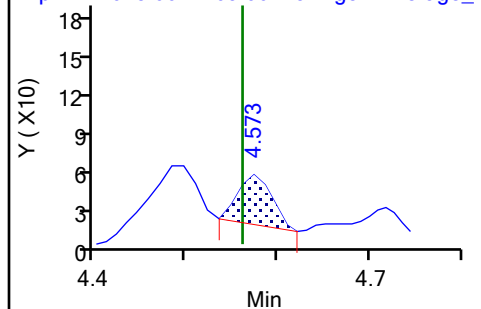
41 Perfluorotridecanoic acid (ND)

41 Perfluorotridecanoic acid (ND)

Exp1:m/z 613.00 > 169.00:Moving3PtAverage_x

Exp1:m/z 663.00 > 619.00:Moving3PtAverage_x

Exp1:m/z 663.00 > 169.00:Moving3PtAverage_x



D 43 13C2 PFTeDA

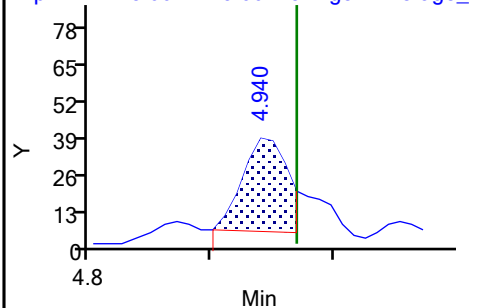
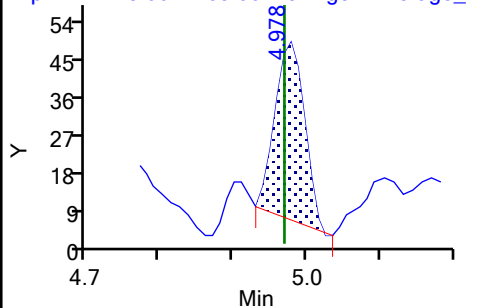
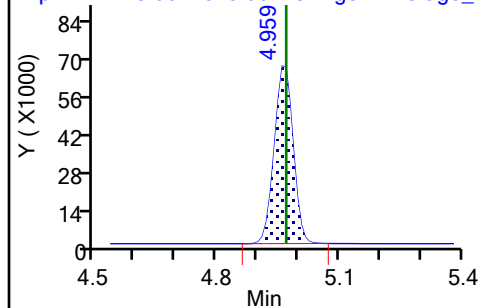
42 Perfluorotetradecanoic acid (M)

42 Perfluorotetradecanoic acid (M)

Exp1:m/z 715.00 > 670.00:Moving3PtAverage_x

Exp1:m/z 713.00 > 169.00:Moving3PtAverage_x

Exp1:m/z 713.00 > 219.00:Moving3PtAverage_x



Eurofins TestAmerica, Burlington

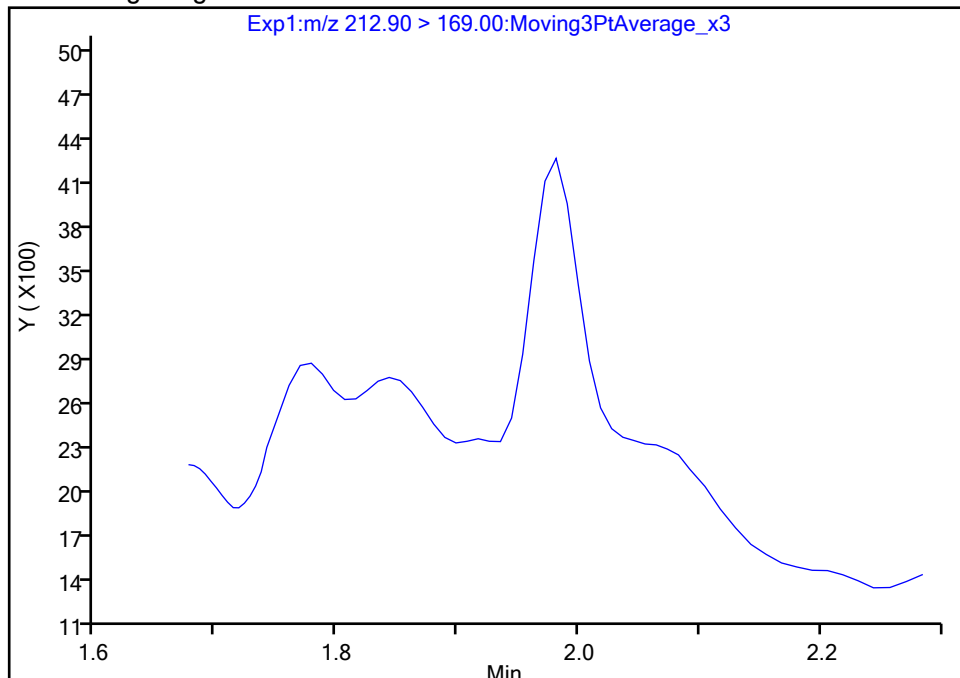
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d
Injection Date: 27-Oct-2020 19:17:30 Instrument ID: LC812
Lims ID: 480-176996-C-1-A Lab Sample ID: 200-176996-1
Client ID: EQUIP BLANK
Operator ID: lc812tech ALS Bottle#: 14 Worklist Smp#: 17
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

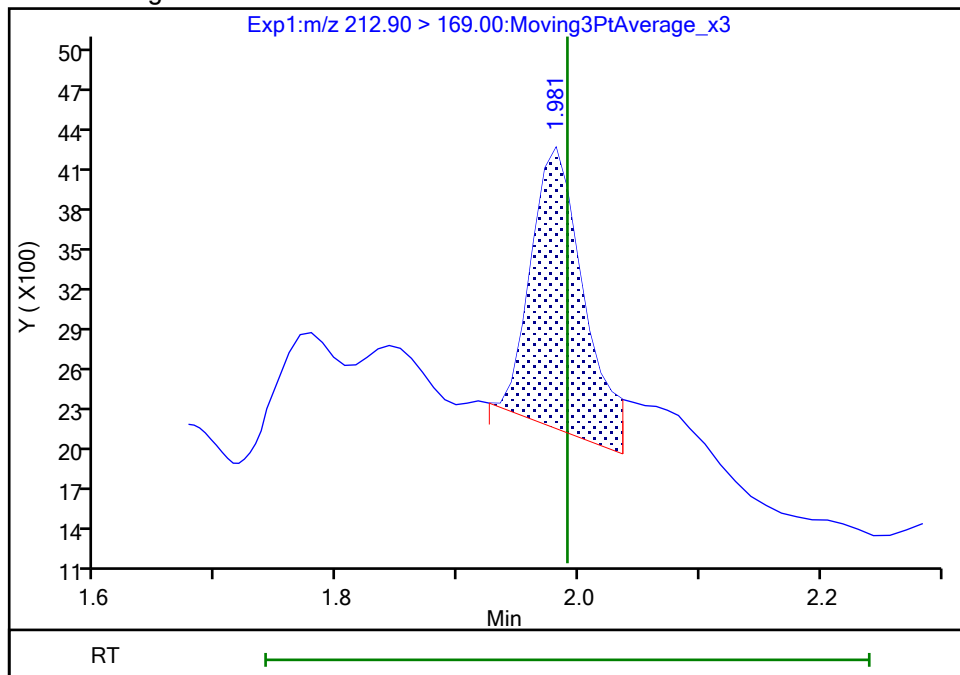
Not Detected
Expected RT: 1.99

Processing Integration Results



RT: 1.98
Area: 6245
Amount: 0.007841
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 12:43:28
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 189 of 906

Eurofins TestAmerica, Burlington

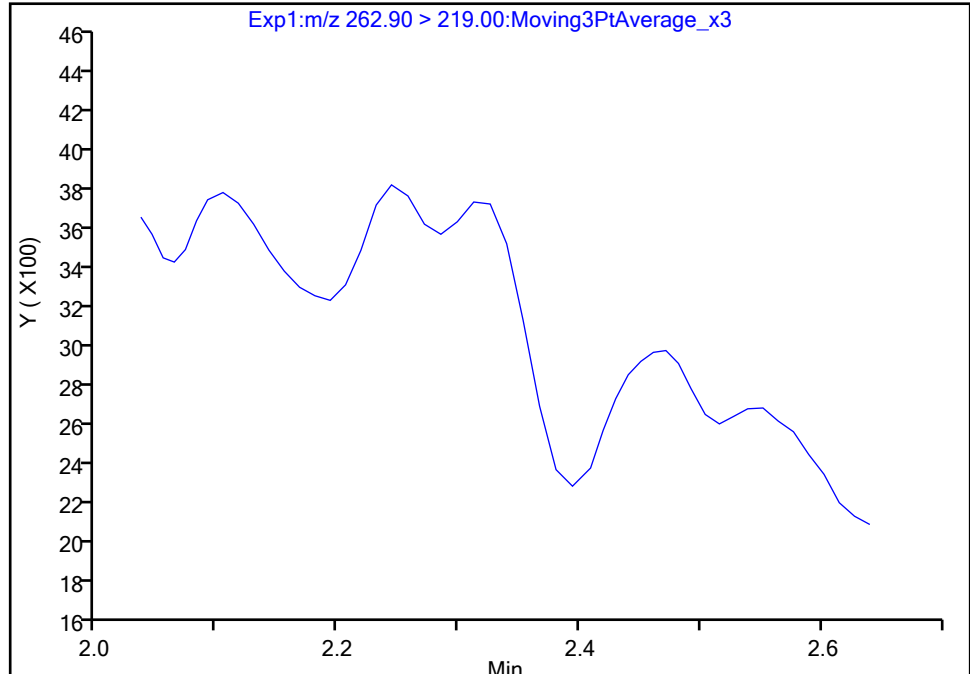
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Injection Date:	27-Oct-2020 19:17:30	Instrument ID:	LC812		
Lims ID:	480-176996-C-1-A	Lab Sample ID:	200-176996-1		
Client ID:	EQUIP BLANK				
Operator ID:	lc812tech	ALS Bottle#:	14	Worklist Smp#:	17
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

4 Perfluoropentanoic acid, CAS: 2706-90-3

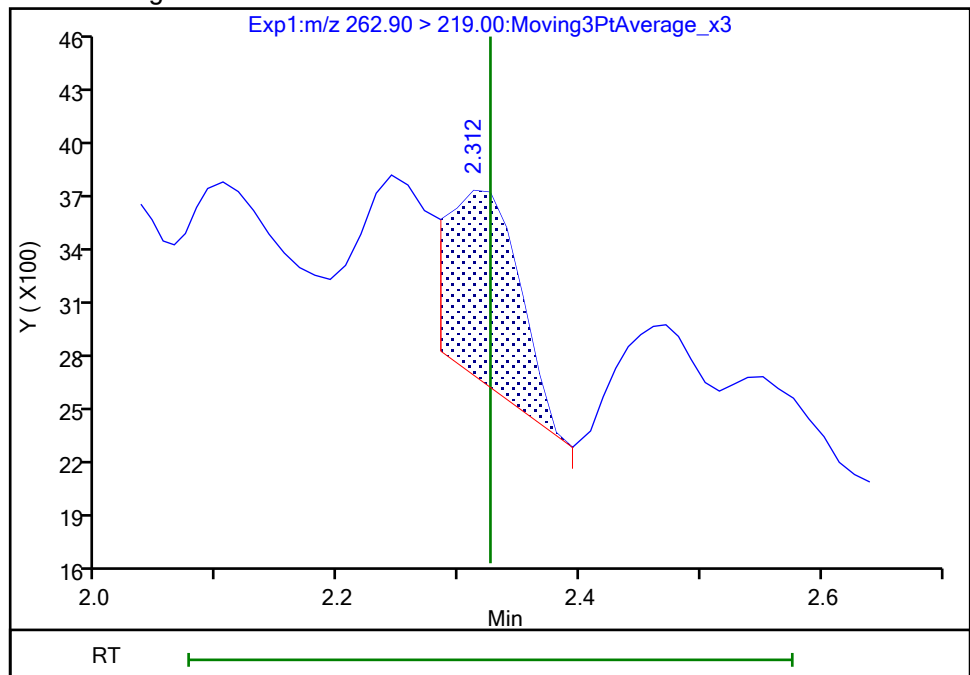
Signal: 1

Not Detected
Expected RT: 2.33

Processing Integration Results

RT: 2.31
Area: 4202
Amount: 0.006465
Amount Units: ng/ml

Manual Integration Results

Reviewer: chirgwinb, 28-Oct-2020 12:43:44
Audit Action: Manually IntegratedAudit Reason: Missed Peak
Page 190 of 906

Eurofins TestAmerica, Burlington

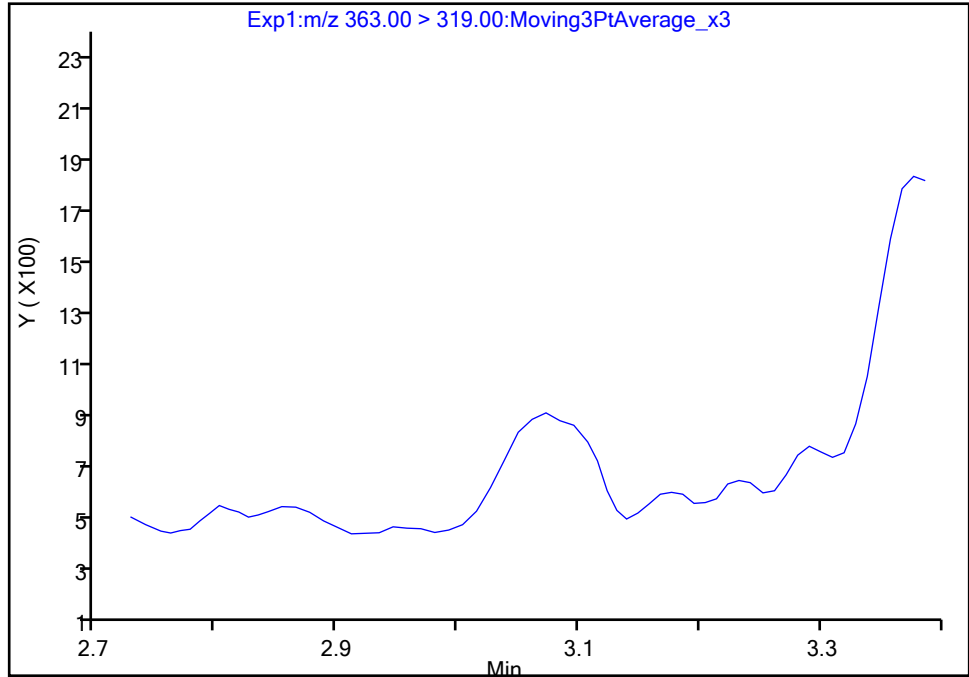
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Injection Date:	27-Oct-2020 19:17:30	Instrument ID:	LC812		
Lims ID:	480-176996-C-1-A	Lab Sample ID:	200-176996-1		
Client ID:	EQUIP BLANK				
Operator ID:	lc812tech	ALS Bottle#:	14	Worklist Smp#:	17
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

10 Perfluoroheptanoic acid, CAS: 375-85-9

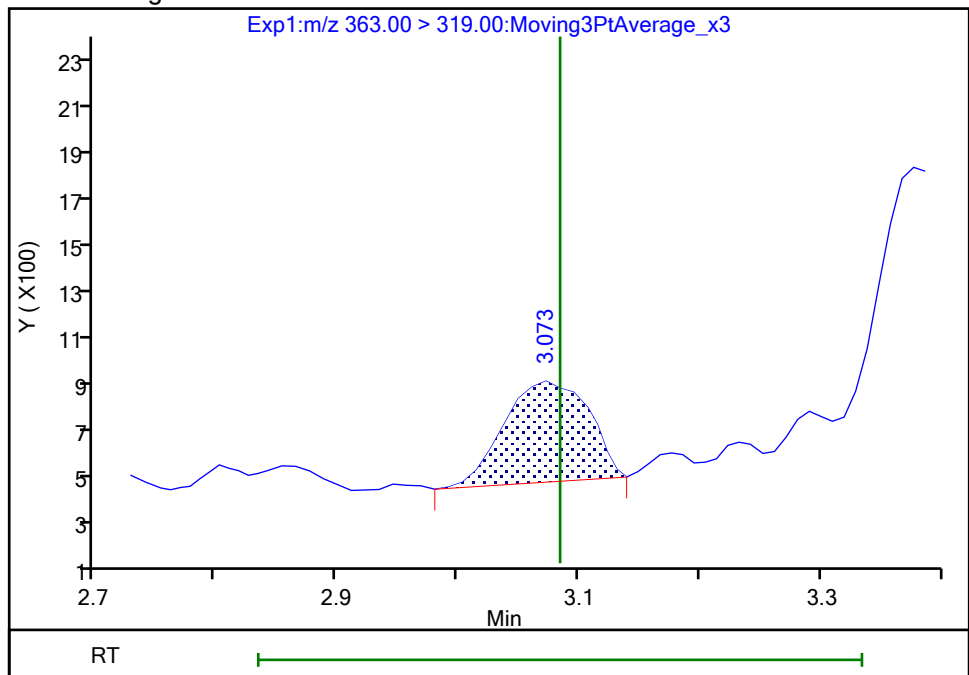
Signal: 1

Not Detected
Expected RT: 3.08

Processing Integration Results



Manual Integration Results



RT: 3.07
Area: 2010
Amount: 0.003598
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:04:48

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

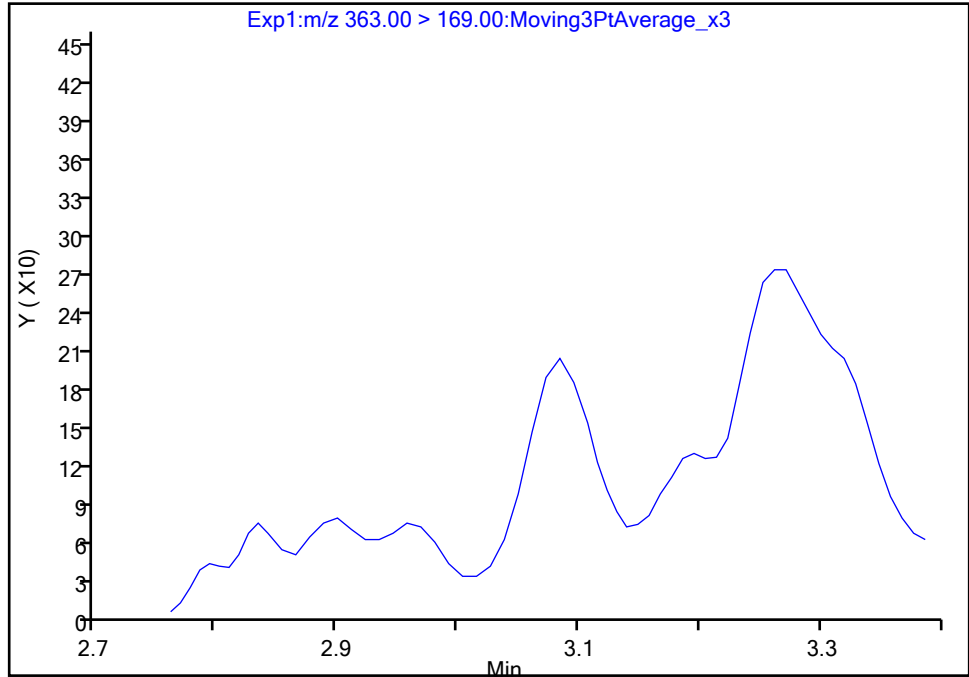
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Injection Date: 27-Oct-2020 19:17:30 Instrument ID: LC812
Lims ID: 480-176996-C-1-A Lab Sample ID: 200-176996-1
Client ID: EQUIP BLANK
Operator ID: lc812tech ALS Bottle#: 14 Worklist Smp#: 17
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

10 Perfluoroheptanoic acid, CAS: 375-85-9

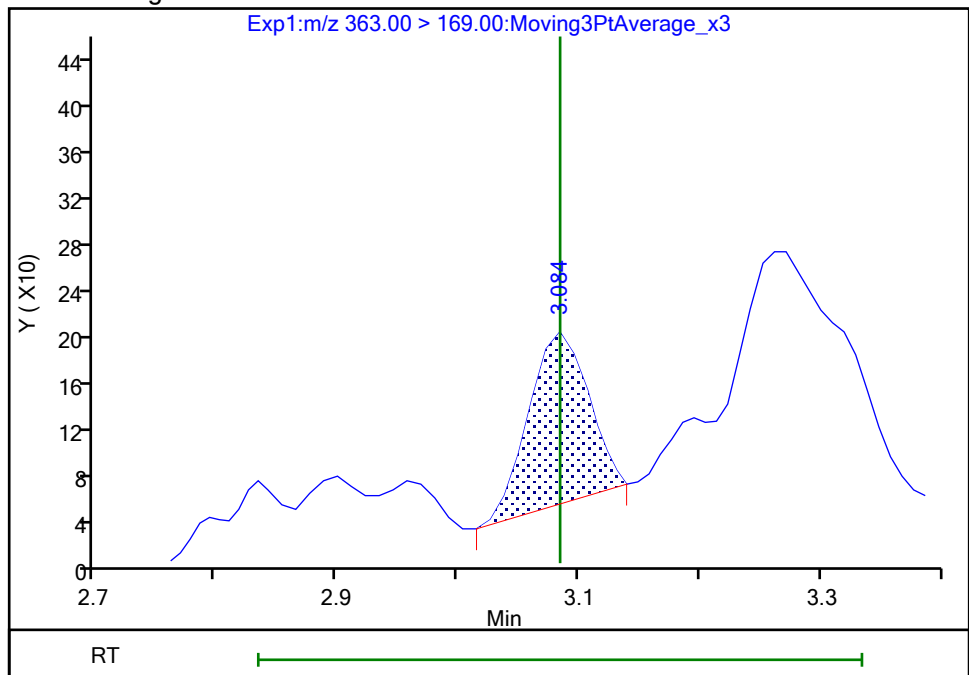
Signal: 2

Not Detected
Expected RT: 3.08

Processing Integration Results



Manual Integration Results



RT: 3.08
Area: 518
Amount: 0.003598
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:04:54

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

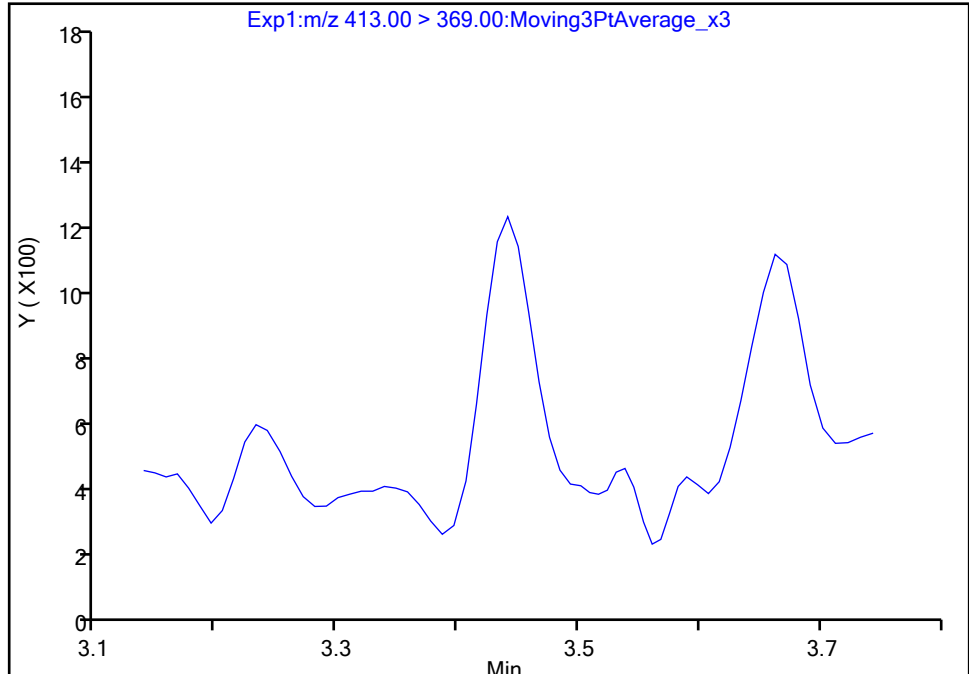
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d				
Injection Date:	27-Oct-2020 19:17:30	Instrument ID:	LC812		
Lims ID:	480-176996-C-1-A	Lab Sample ID:	200-176996-1		
Client ID:	EQUIP BLANK				
Operator ID:	lc812tech	ALS Bottle#:	14	Worklist Smp#:	17
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

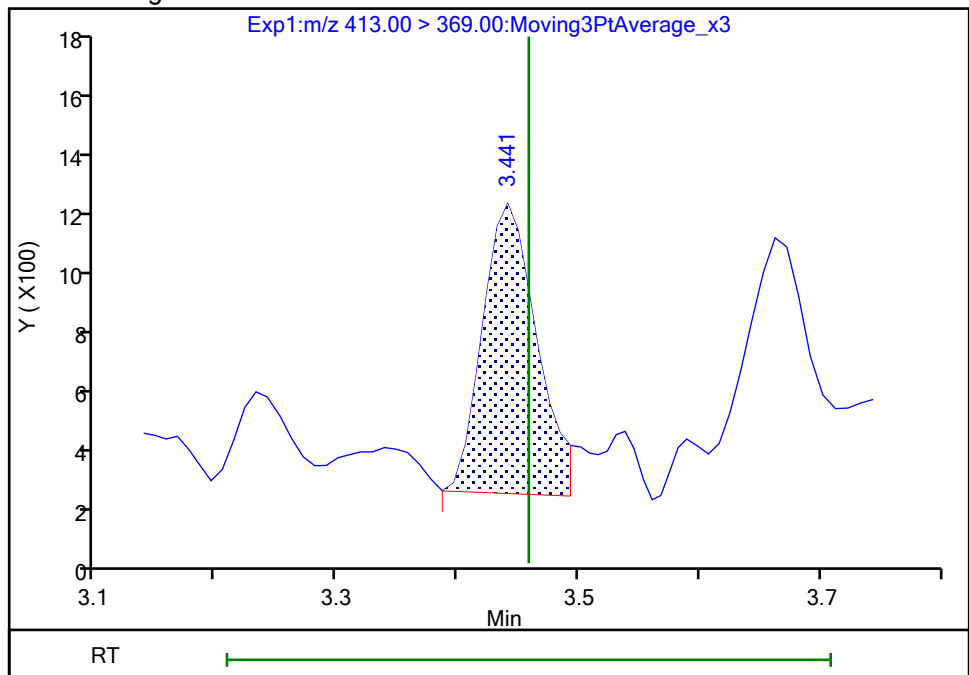
Signal: 1

Not Detected
Expected RT: 3.46

Processing Integration Results



Manual Integration Results



RT: 3.44
Area: 2922
Amount: 0.005712
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:05:29

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

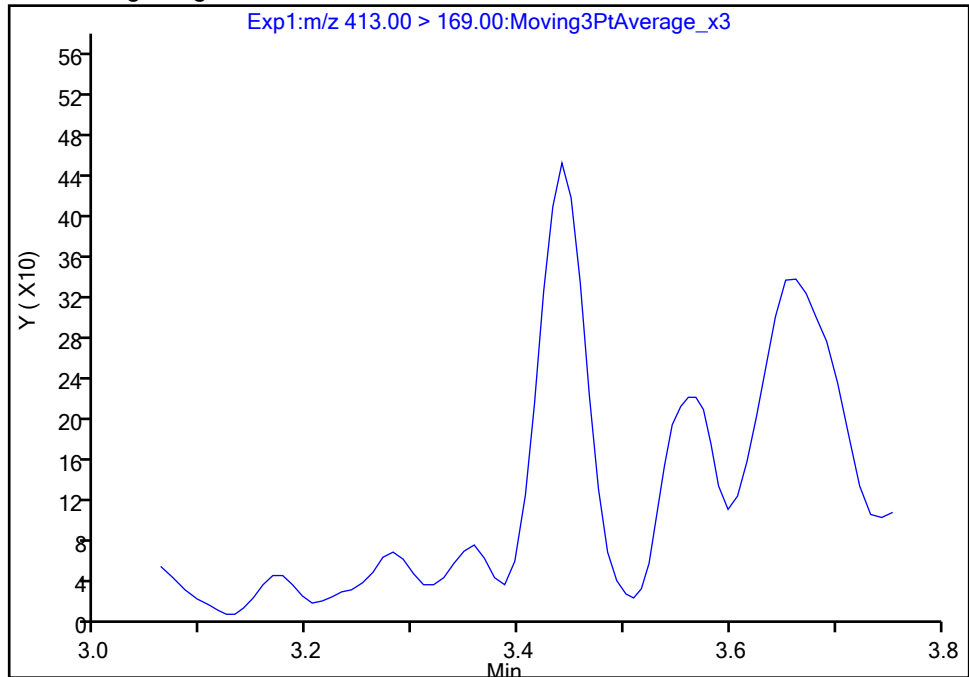
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d
Injection Date: 27-Oct-2020 19:17:30 Instrument ID: LC812
Lims ID: 480-176996-C-1-A Lab Sample ID: 200-176996-1
Client ID: EQUIP BLANK
Operator ID: lc812tech ALS Bottle#: 14 Worklist Smp#: 17
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

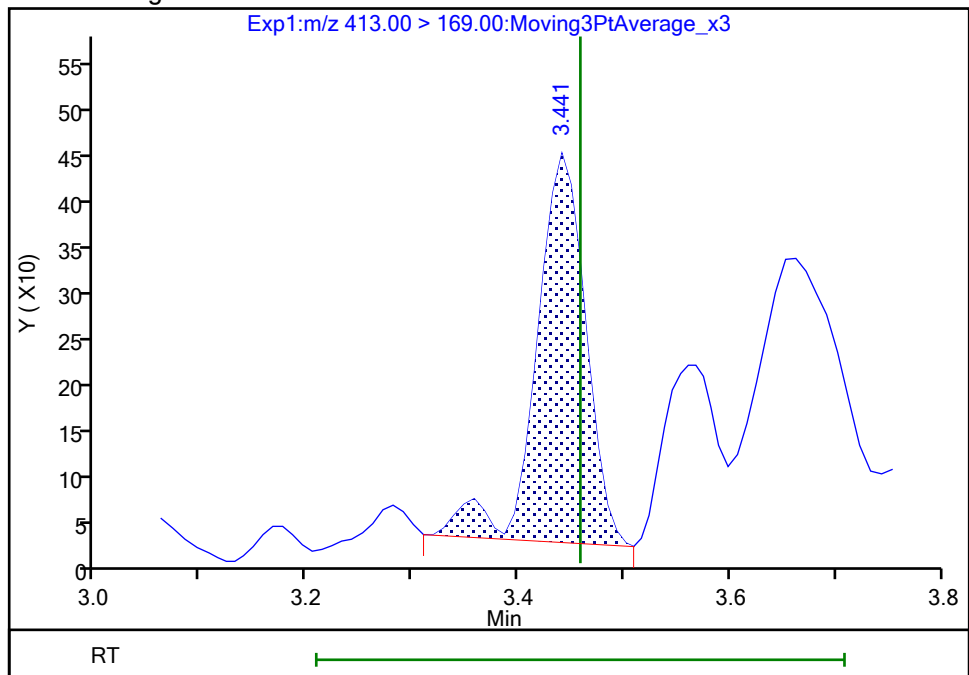
Not Detected
Expected RT: 3.46

Processing Integration Results



Manual Integration Results

RT: 3.44
Area: 1374
Amount: 0.005712
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 09:05:41

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

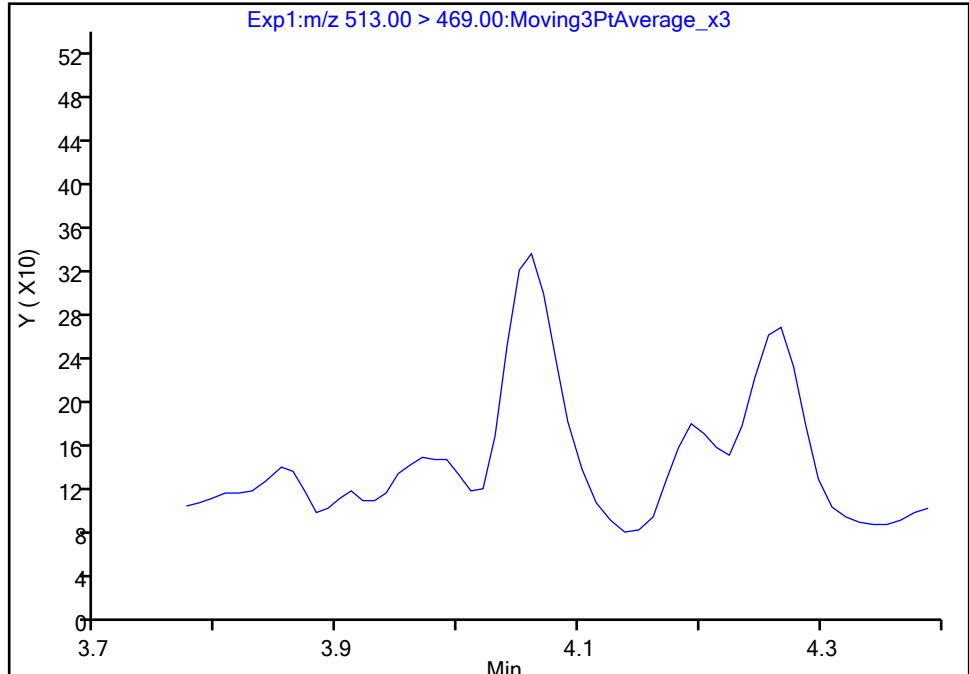
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d				
Injection Date:	27-Oct-2020 19:17:30	Instrument ID:	LC812		
Lims ID:	480-176996-C-1-A	Lab Sample ID:	200-176996-1		
Client ID:	EQUIP BLANK				
Operator ID:	lc812tech	ALS Bottle#:	14	Worklist Smp#:	17
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

24 Perfluorodecanoic acid, CAS: 335-76-2

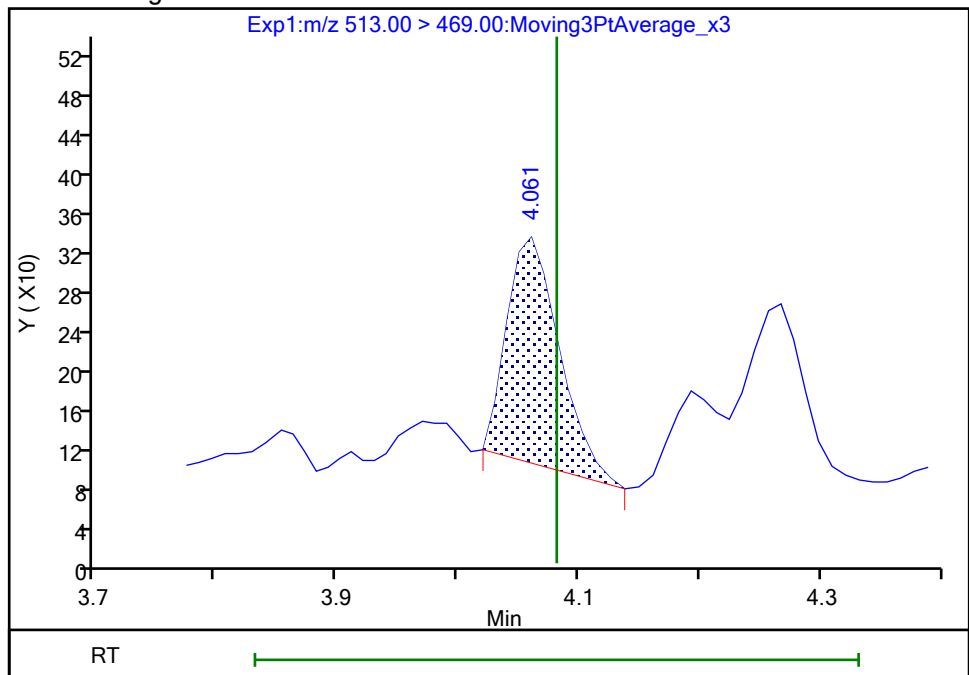
Signal: 1

Not Detected
Expected RT: 4.08

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:08:12

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

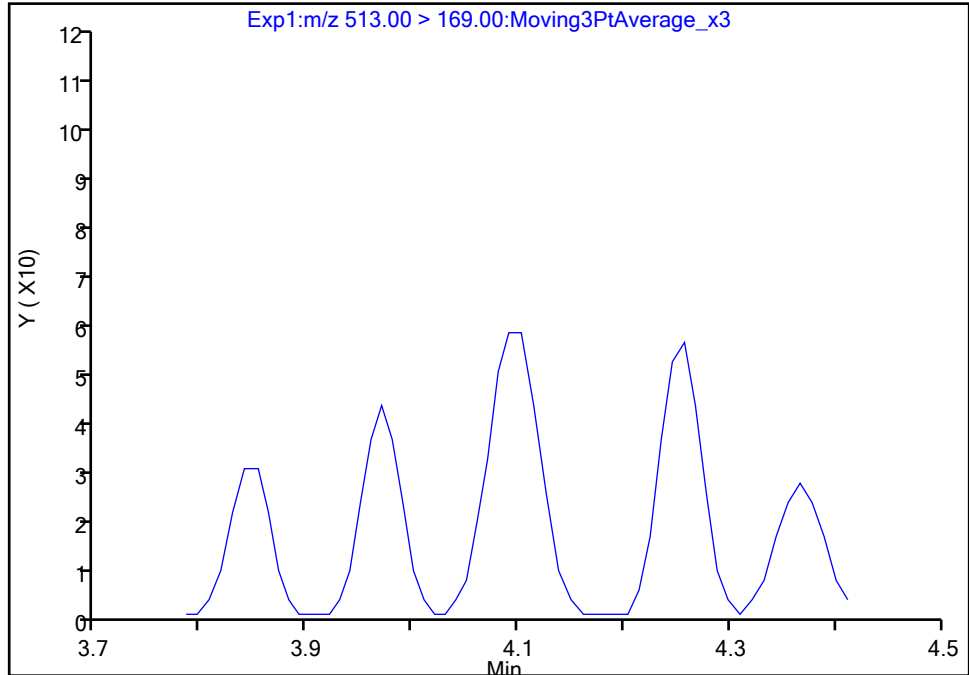
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d
Injection Date: 27-Oct-2020 19:17:30 Instrument ID: LC812
Lims ID: 480-176996-C-1-A Lab Sample ID: 200-176996-1
Client ID: EQUIP BLANK
Operator ID: lc812tech ALS Bottle#: 14 Worklist Smp#: 17
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

24 Perfluorodecanoic acid, CAS: 335-76-2

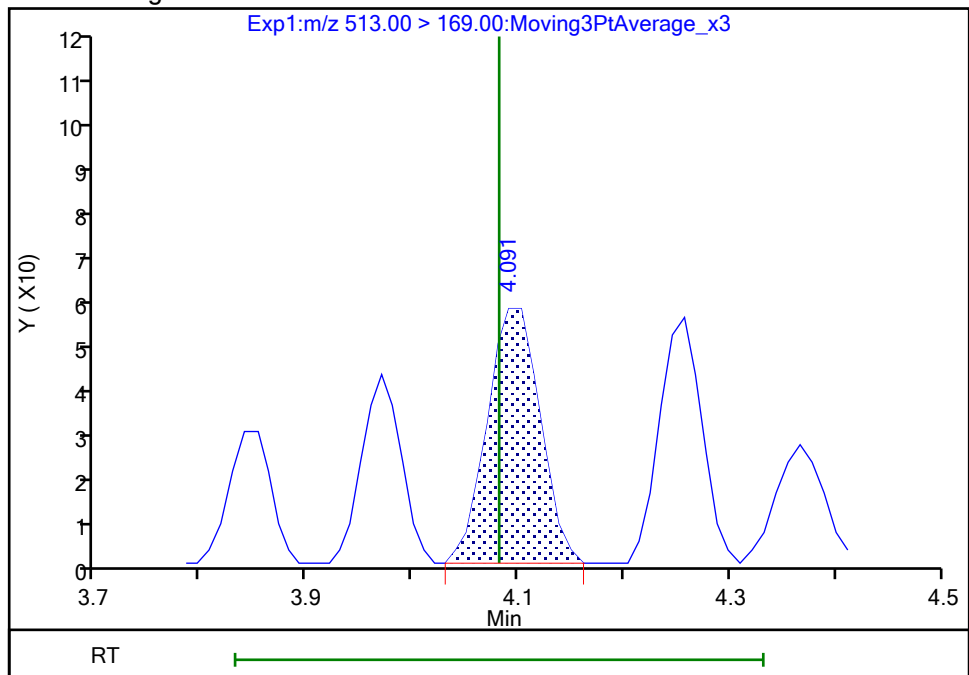
Signal: 2

Not Detected
Expected RT: 4.08

Processing Integration Results



Manual Integration Results



RT: 4.09
Area: 202
Amount: 0.001800
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:08:15

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

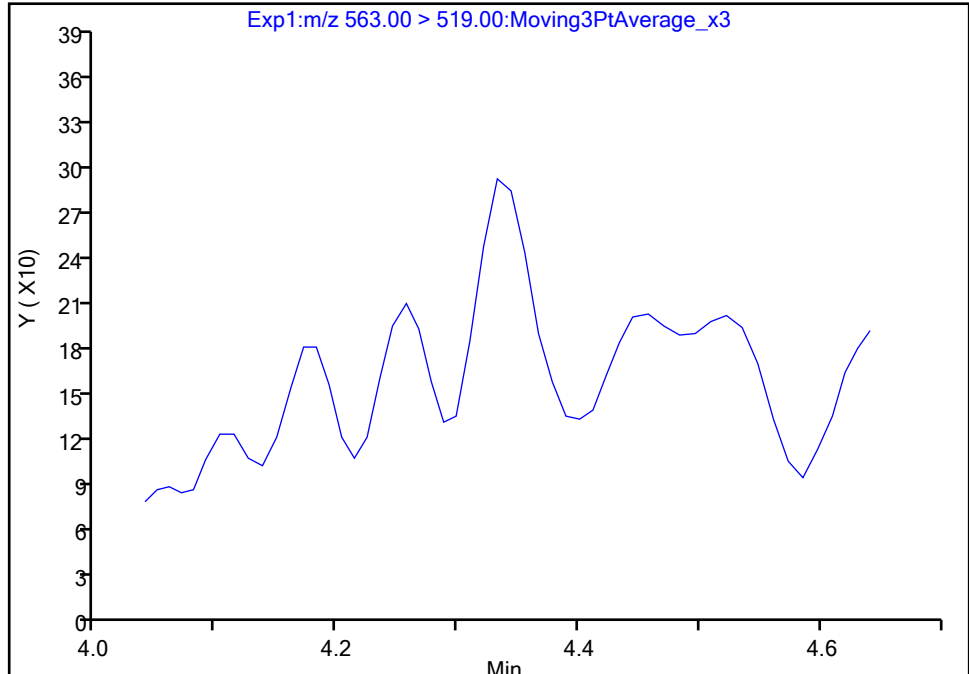
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d				
Injection Date:	27-Oct-2020 19:17:30	Instrument ID:	LC812		
Lims ID:	480-176996-C-1-A	Lab Sample ID:	200-176996-1		
Client ID:	EQUIP BLANK				
Operator ID:	lc812tech	ALS Bottle#:	14	Worklist Smp#:	17
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

31 Perfluoroundecanoic acid, CAS: 2058-94-8

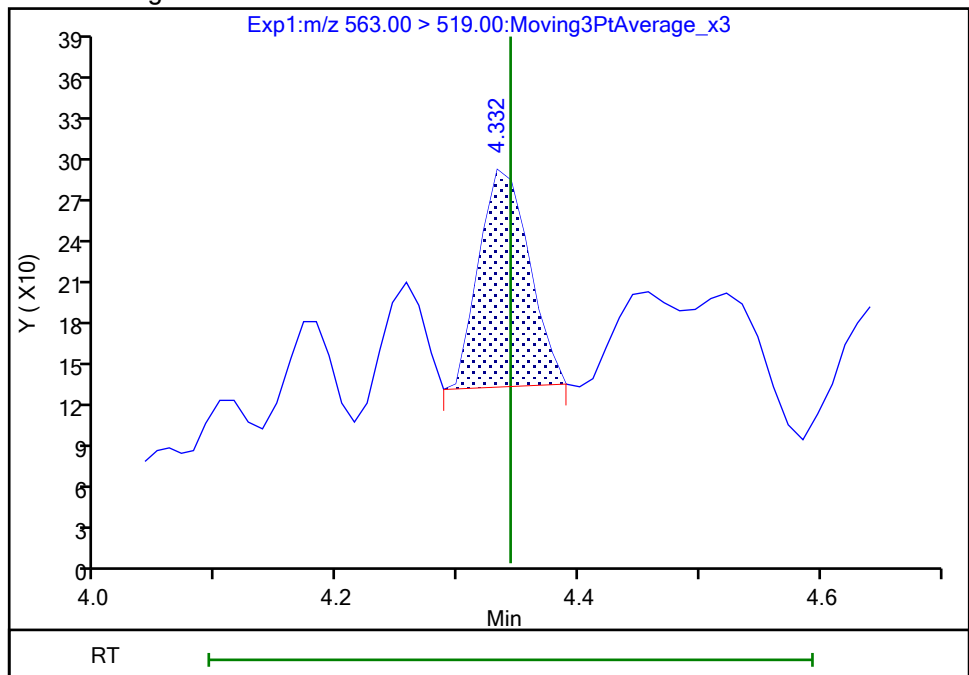
Signal: 1

Not Detected
Expected RT: 4.34

Processing Integration Results



Manual Integration Results



RT: 4.33
Area: 459
Amount: 0.001648
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:08:49

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

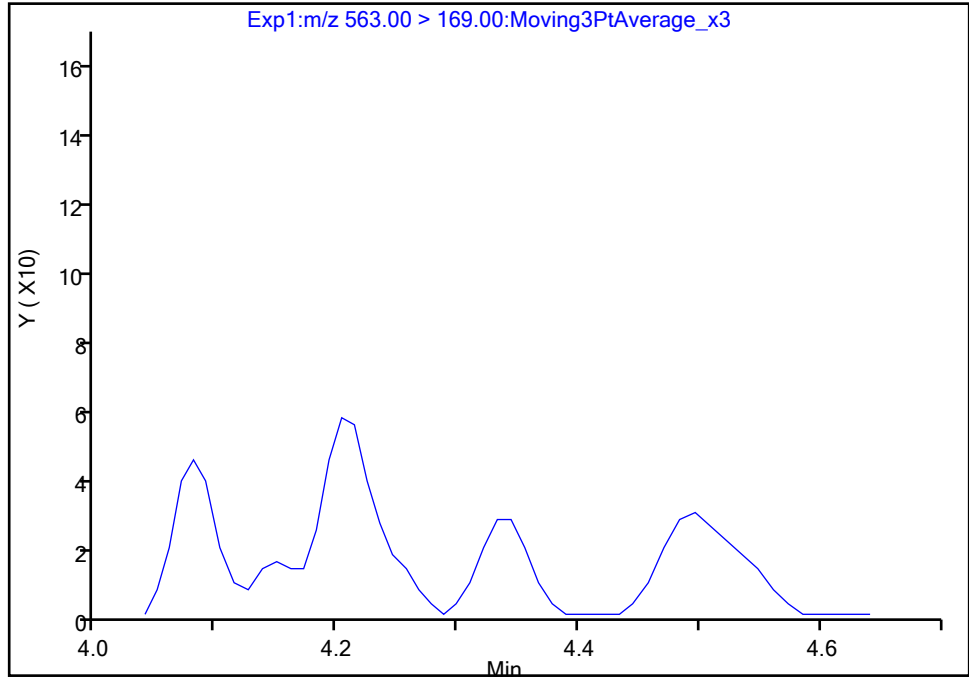
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d
Injection Date: 27-Oct-2020 19:17:30 Instrument ID: LC812
Lims ID: 480-176996-C-1-A Lab Sample ID: 200-176996-1
Client ID: EQUIP BLANK
Operator ID: lc812tech ALS Bottle#: 14 Worklist Smp#: 17
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

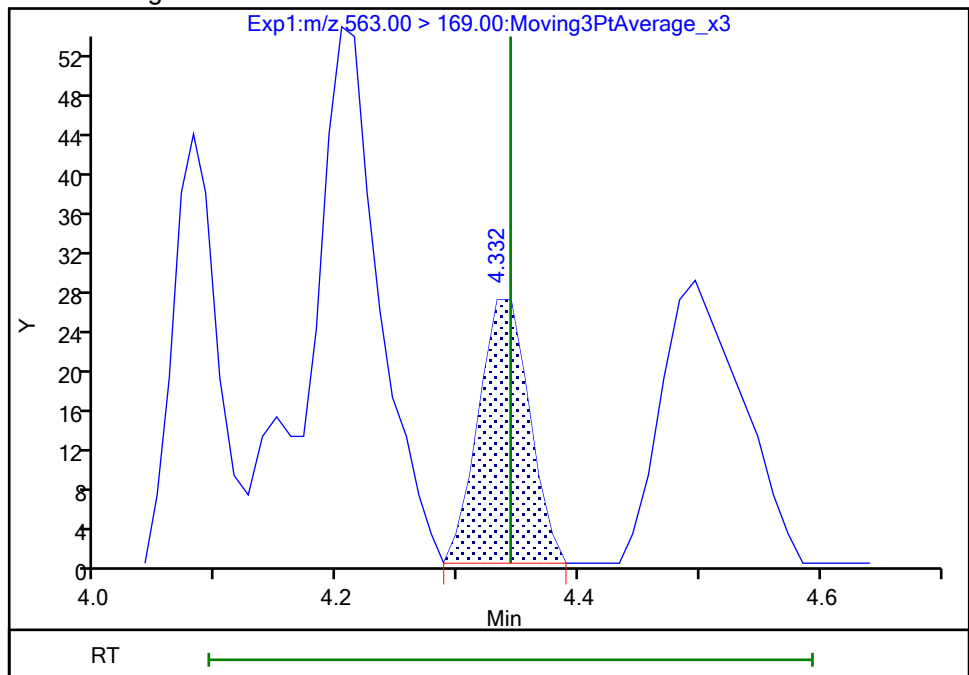
Not Detected
Expected RT: 4.34

Processing Integration Results



Manual Integration Results

RT: 4.33
Area: 79
Amount: 0.001648
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 09:08:53

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

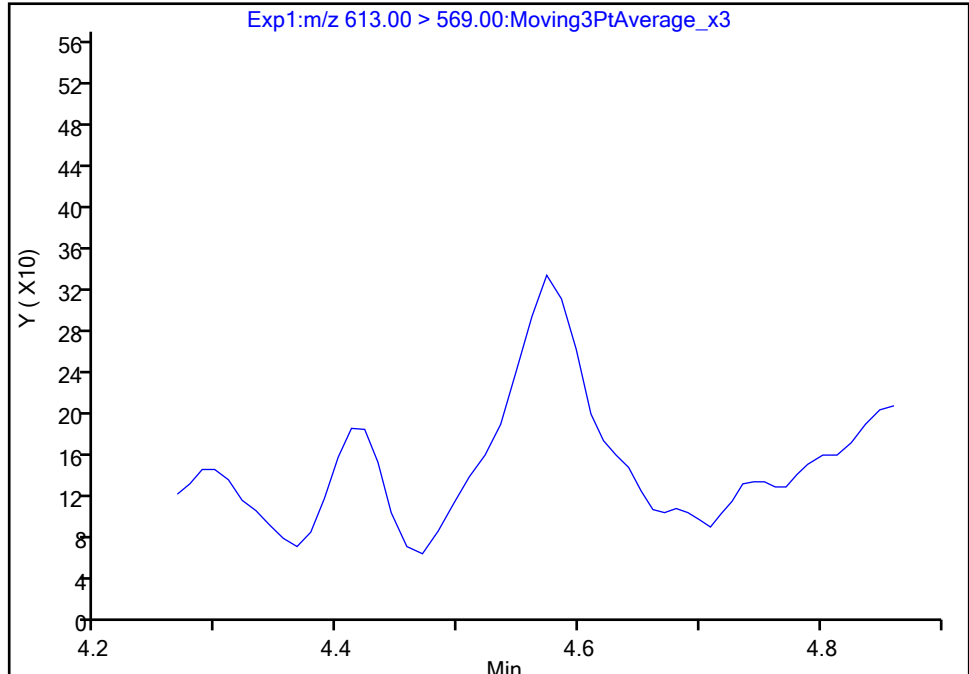
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d
Injection Date: 27-Oct-2020 19:17:30 Instrument ID: LC812
Lims ID: 480-176996-C-1-A Lab Sample ID: 200-176996-1
Client ID: EQUIP BLANK
Operator ID: lc812tech ALS Bottle#: 14 Worklist Smp#: 17
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

37 Perfluorododecanoic acid, CAS: 307-55-1

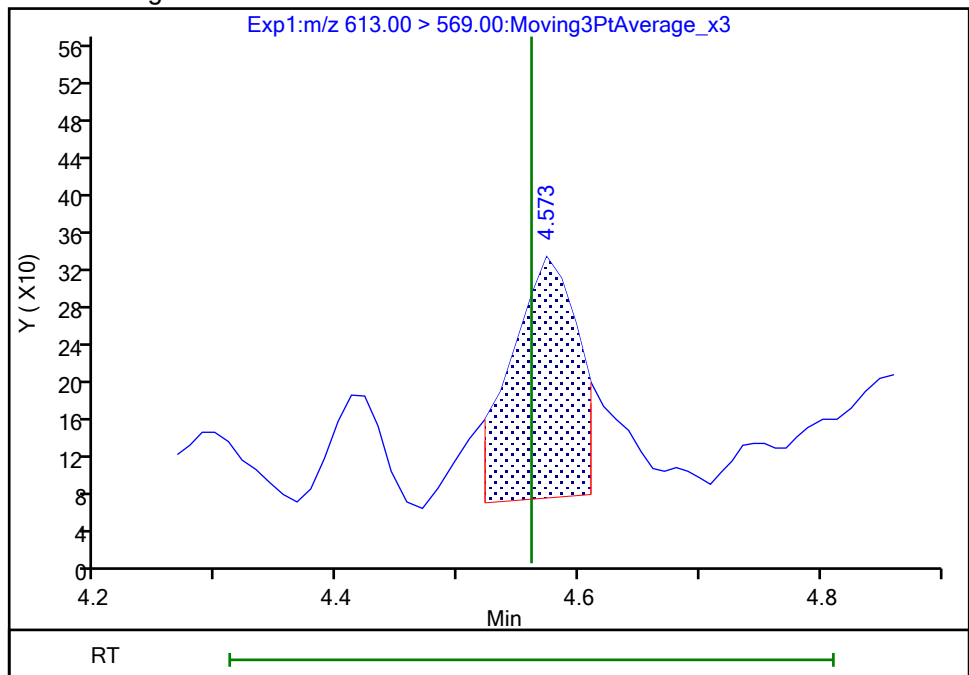
Signal: 1

Not Detected
Expected RT: 4.56

Processing Integration Results



Manual Integration Results



RT: 4.57
Area: 965
Amount: 0.003754
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:09:12

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

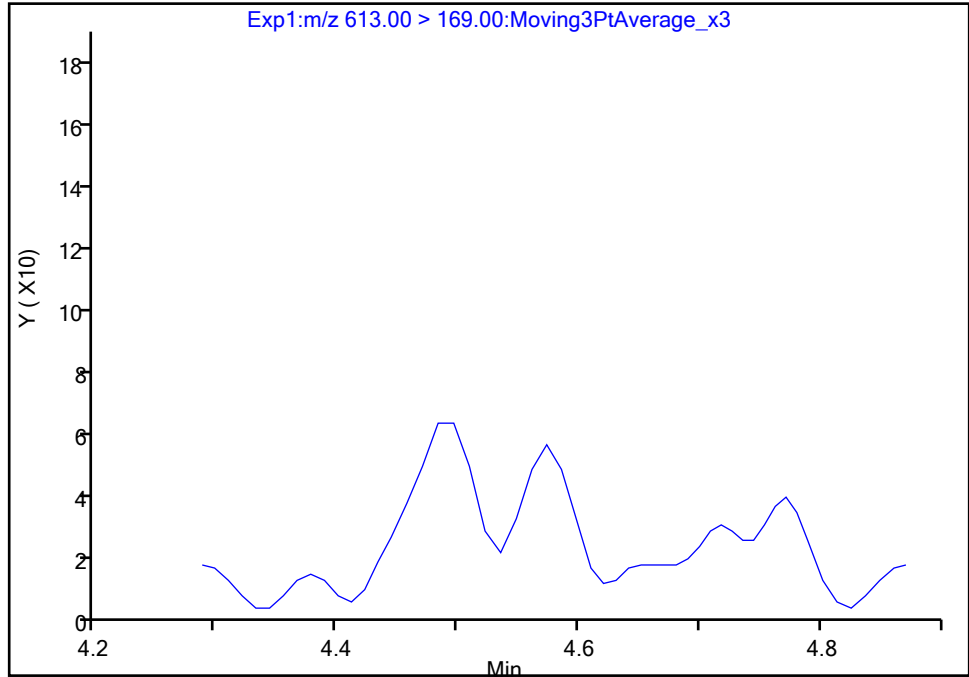
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d
Injection Date: 27-Oct-2020 19:17:30 Instrument ID: LC812
Lims ID: 480-176996-C-1-A Lab Sample ID: 200-176996-1
Client ID: EQUIP BLANK
Operator ID: lc812tech ALS Bottle#: 14 Worklist Smp#: 17
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

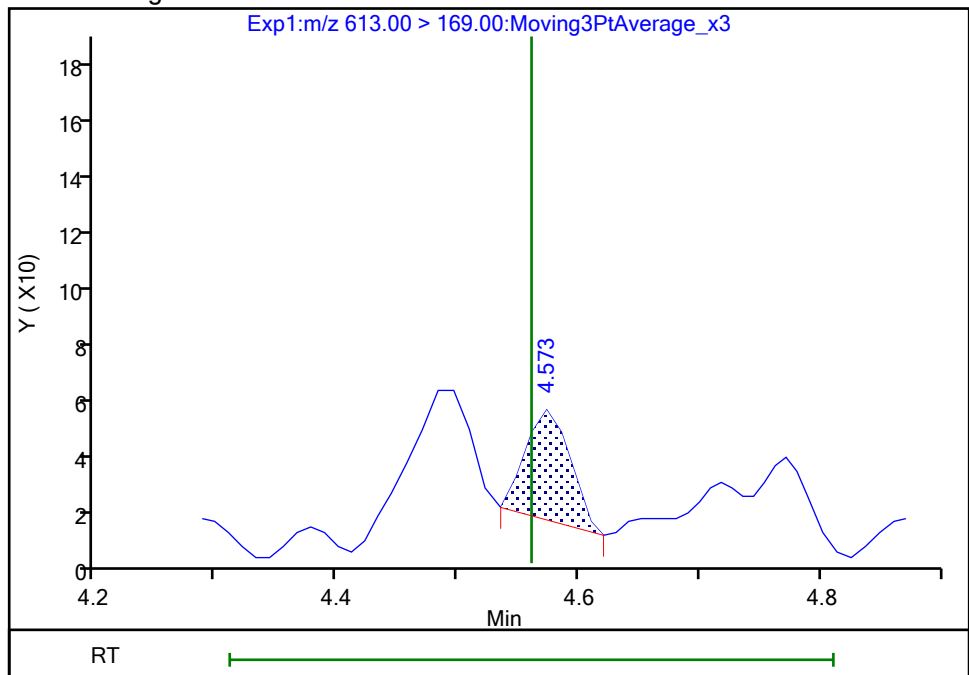
Not Detected
Expected RT: 4.56

Processing Integration Results



Manual Integration Results

RT: 4.57
Area: 101
Amount: 0.003754
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 09:09:19

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 200 of 906

Eurofins TestAmerica, Burlington

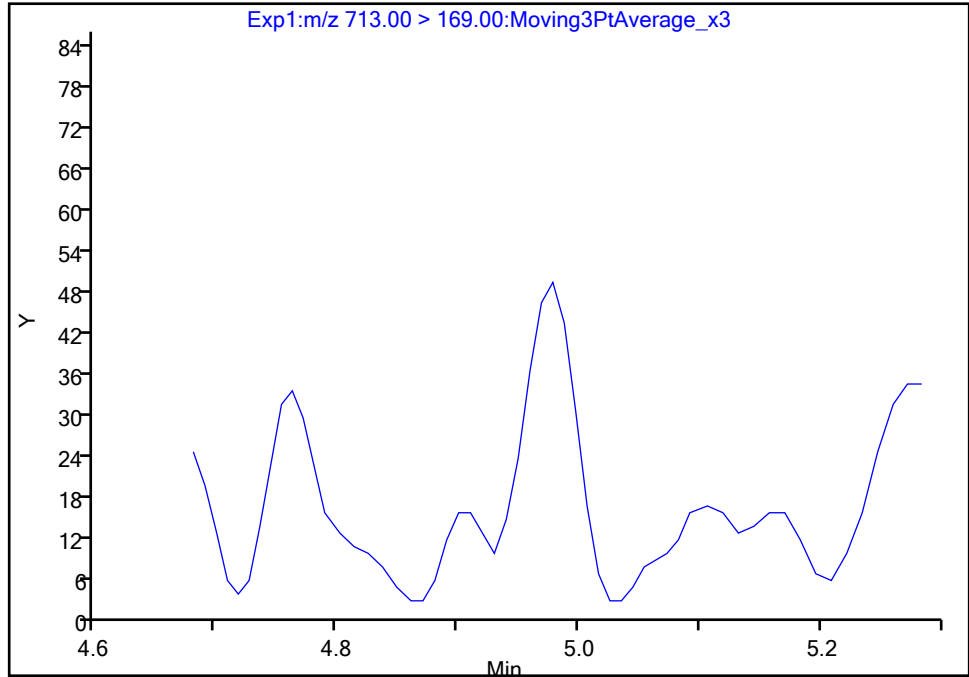
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d
Injection Date: 27-Oct-2020 19:17:30 Instrument ID: LC812
Lims ID: 480-176996-C-1-A Lab Sample ID: 200-176996-1
Client ID: EQUIP BLANK
Operator ID: lc812tech ALS Bottle#: 14 Worklist Smp#: 17
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

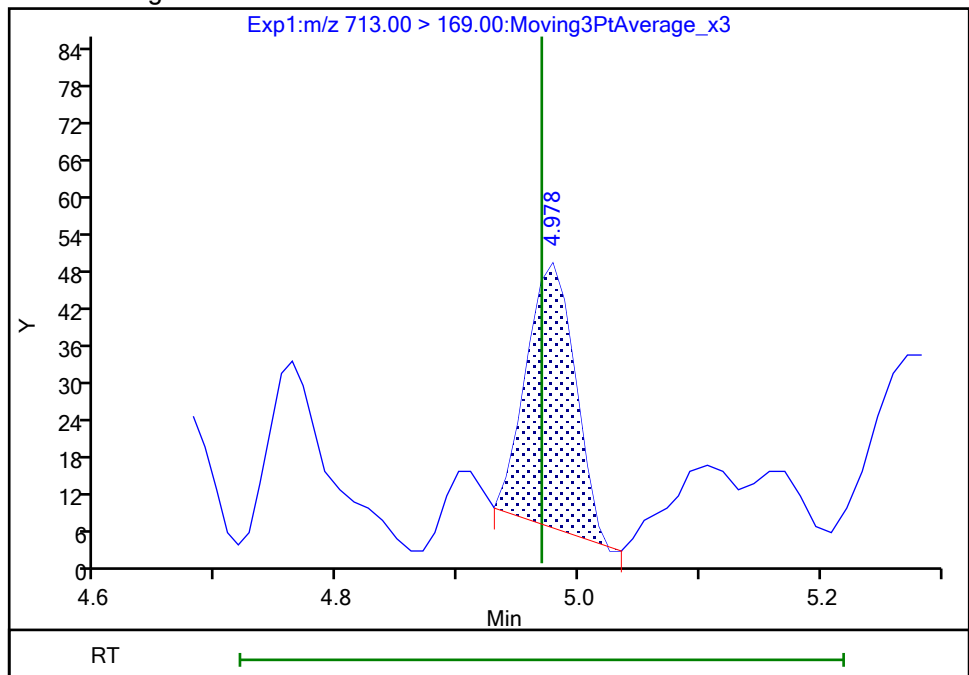
Signal: 1

Not Detected
Expected RT: 4.97

Processing Integration Results



Manual Integration Results



RT: 4.98
Area: 120
Amount: 0.003093
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:09:39

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

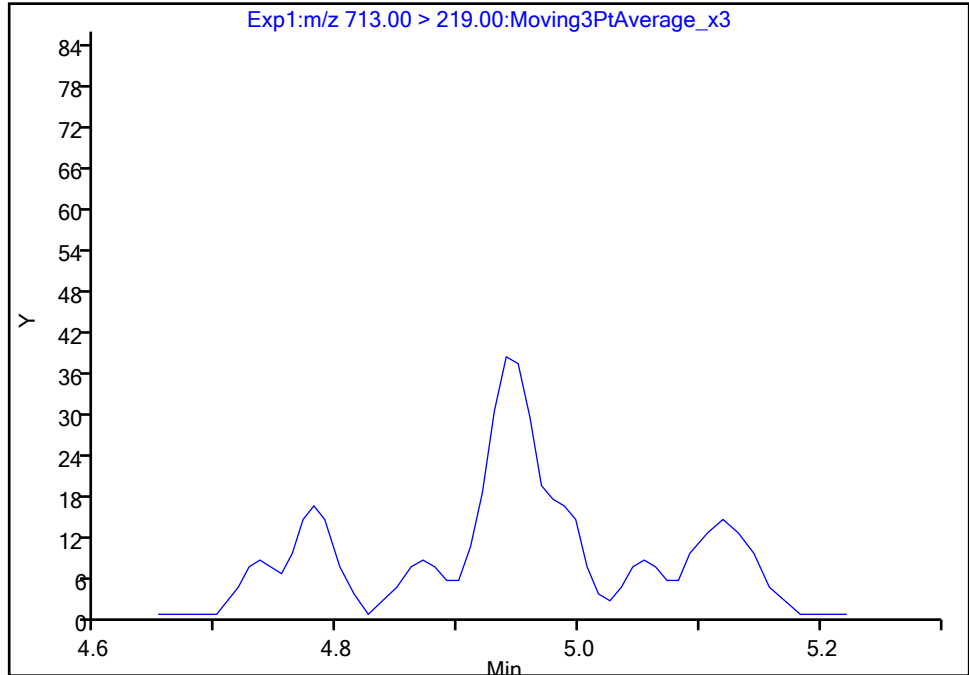
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d
Injection Date: 27-Oct-2020 19:17:30 Instrument ID: LC812
Lims ID: 480-176996-C-1-A Lab Sample ID: 200-176996-1
Client ID: EQUIP BLANK
Operator ID: lc812tech ALS Bottle#: 14 Worklist Smp#: 17
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

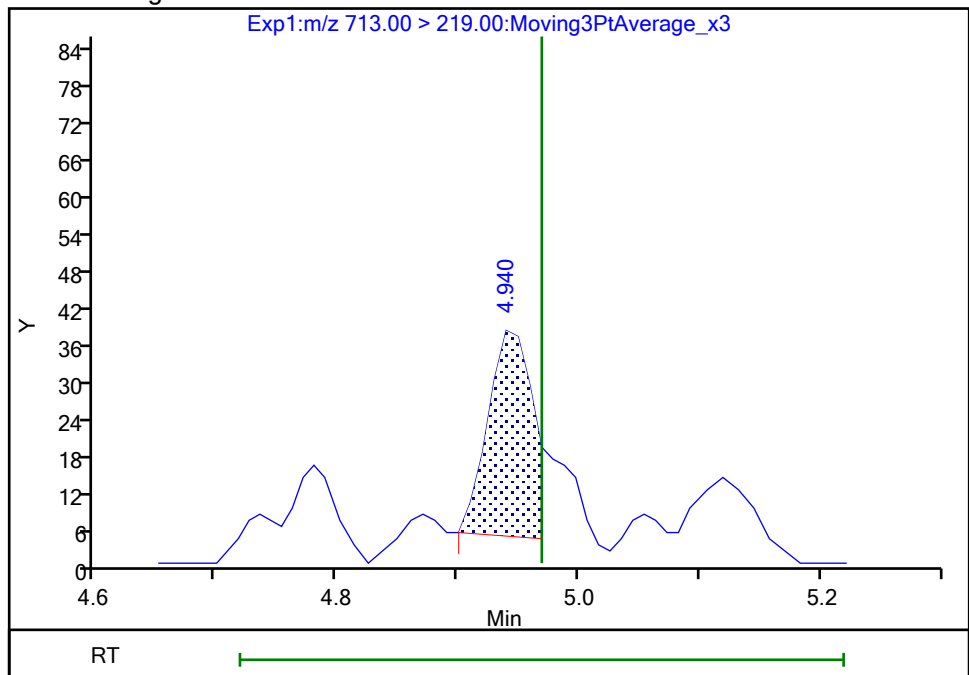
Not Detected
Expected RT: 4.97

Processing Integration Results



Manual Integration Results

RT: 4.94
Area: 83
Amount: 0.003093
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 09:09:50

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d

Injection Date: 27-Oct-2020 19:17:30

Instrument ID: LC812

Lims ID: 480-176996-C-1-A

Lab Sample ID: 200-176996-1

Client ID: EQUIP BLANK

Operator ID: lc812tech

ALS Bottle#: 14

Worklist Smp#: 17

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector: EXP1

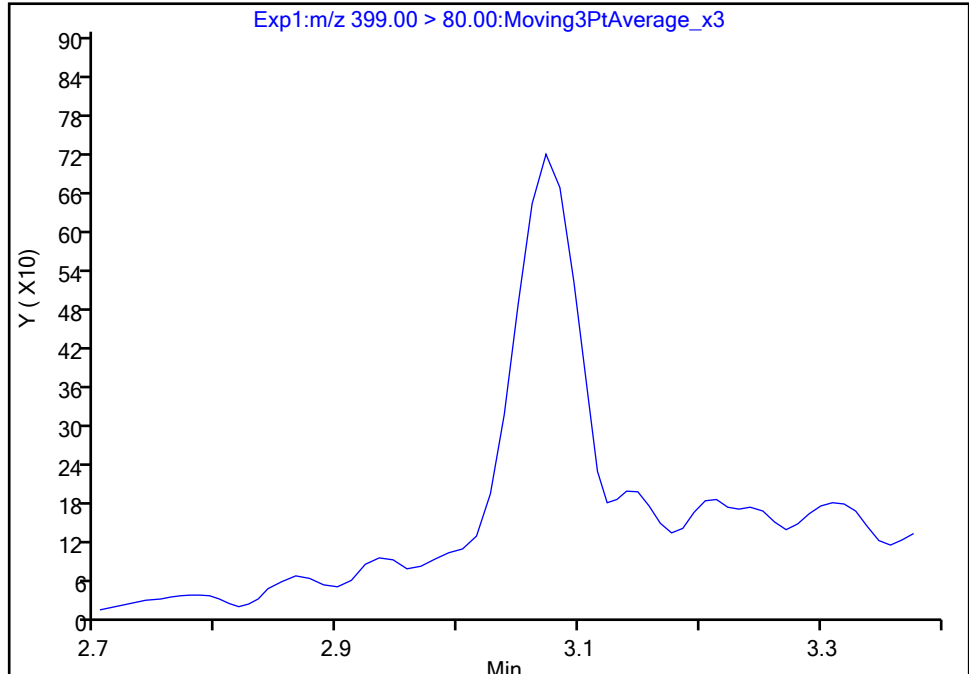
8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

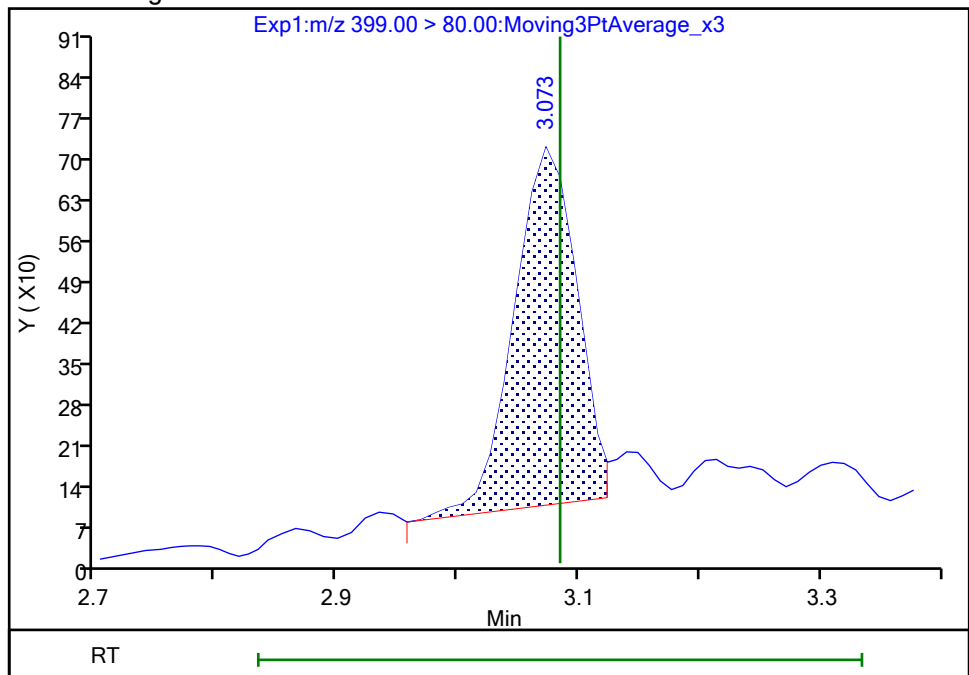
Not Detected

Expected RT: 3.08

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:04:15

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

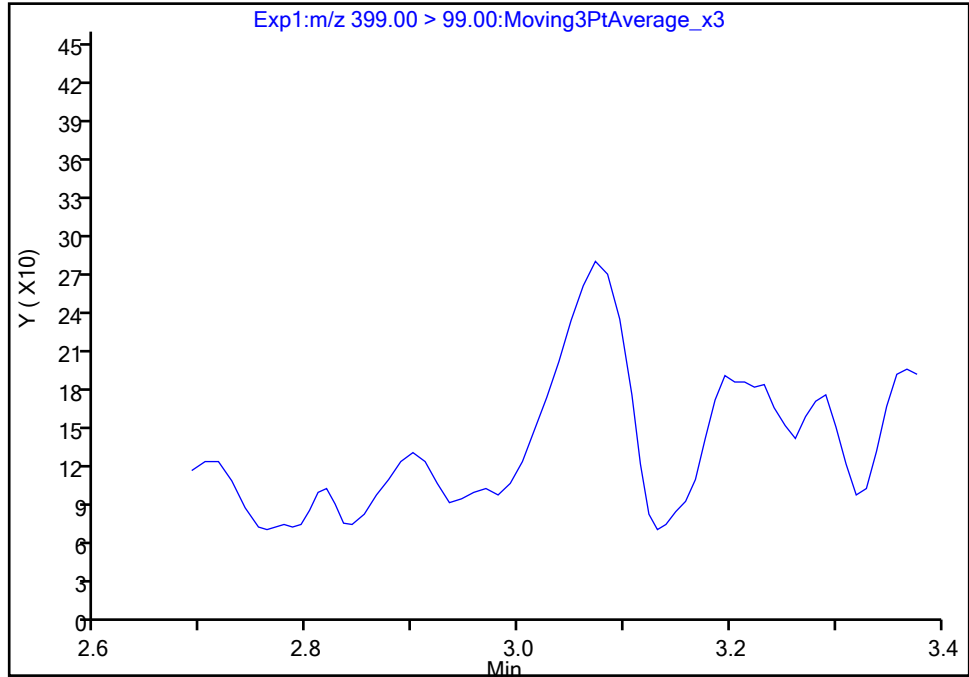
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d
Injection Date: 27-Oct-2020 19:17:30 Instrument ID: LC812
Lims ID: 480-176996-C-1-A Lab Sample ID: 200-176996-1
Client ID: EQUIP BLANK
Operator ID: lc812tech ALS Bottle#: 14 Worklist Smp#: 17
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

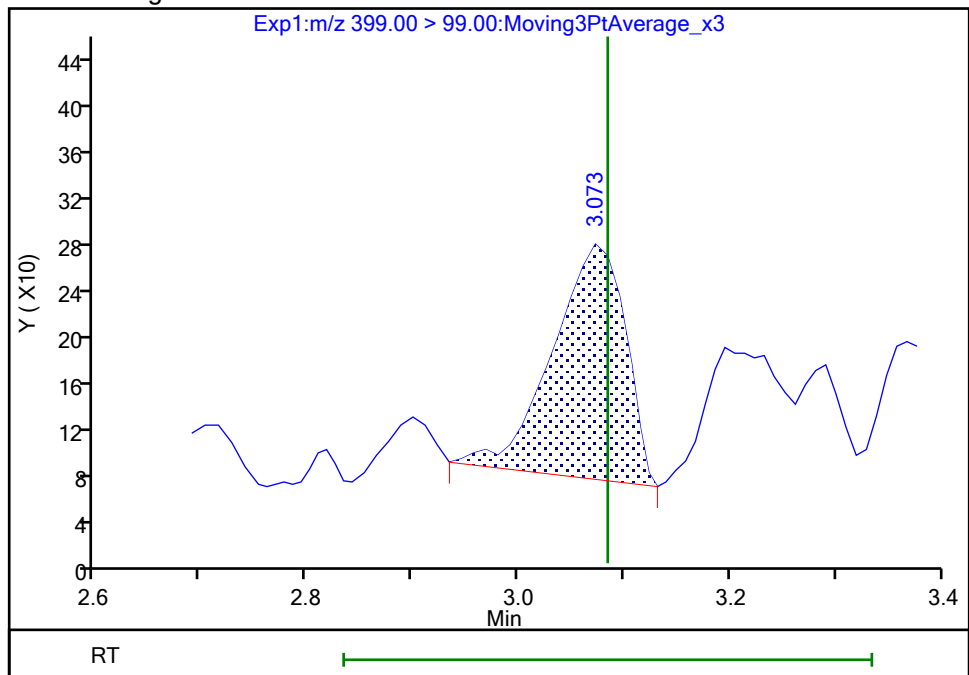
Not Detected
Expected RT: 3.08

Processing Integration Results



Manual Integration Results

RT: 3.07
Area: 968
Amount: 0.004079
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 09:04:31

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

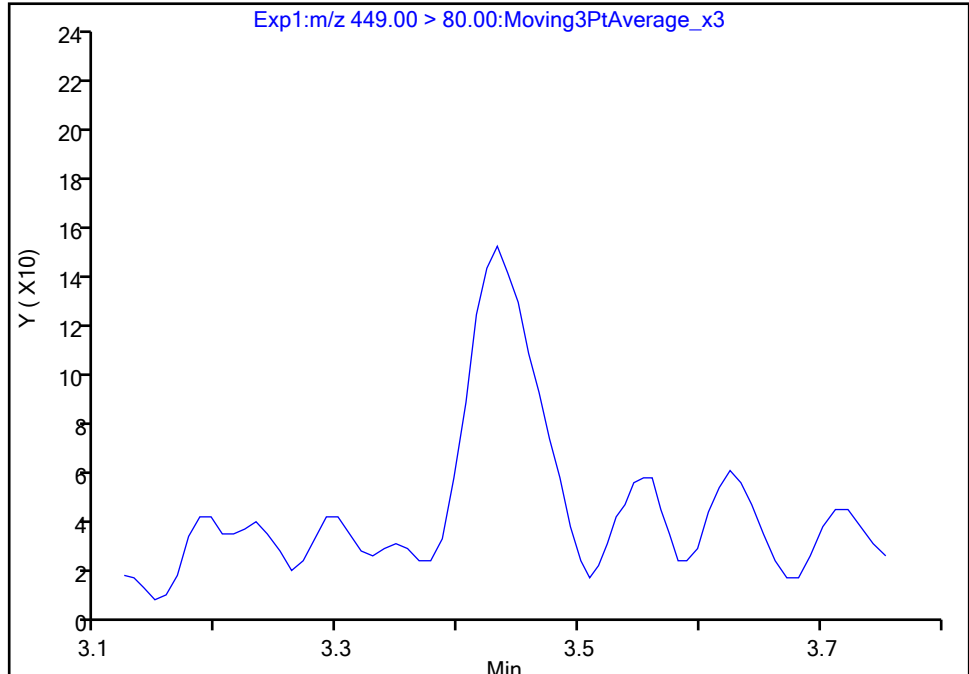
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d				
Injection Date:	27-Oct-2020 19:17:30	Instrument ID:	LC812		
Lims ID:	480-176996-C-1-A	Lab Sample ID:	200-176996-1		
Client ID:	EQUIP BLANK				
Operator ID:	lc812tech	ALS Bottle#:	14	Worklist Smp#:	17
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

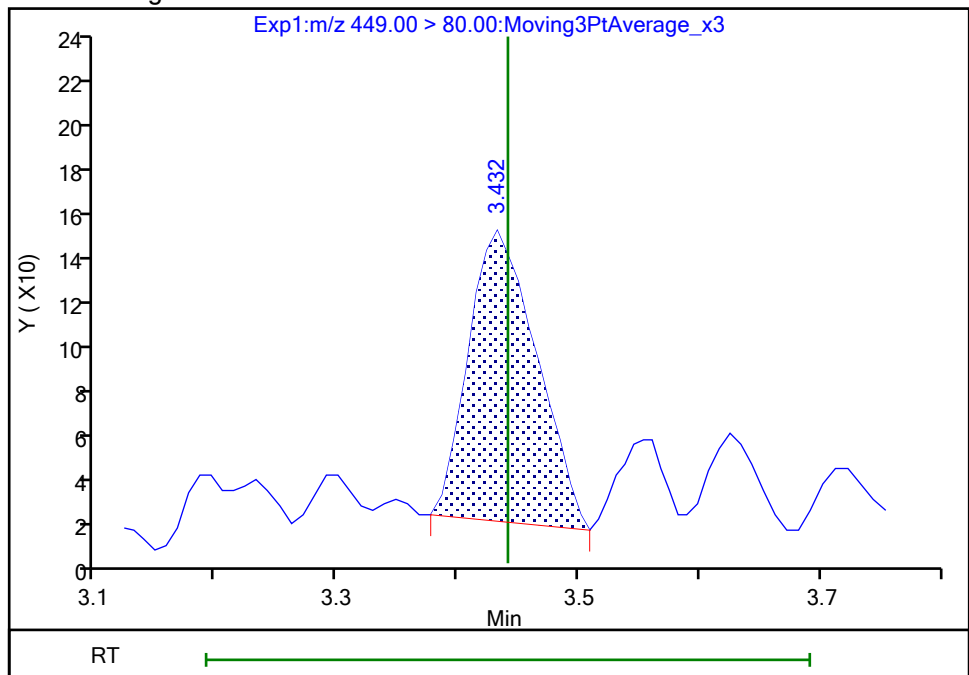
Signal: 1

Not Detected
Expected RT: 3.44

Processing Integration Results



Manual Integration Results



RT: 3.43
Area: 516
Amount: 0.001146
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:05:01

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

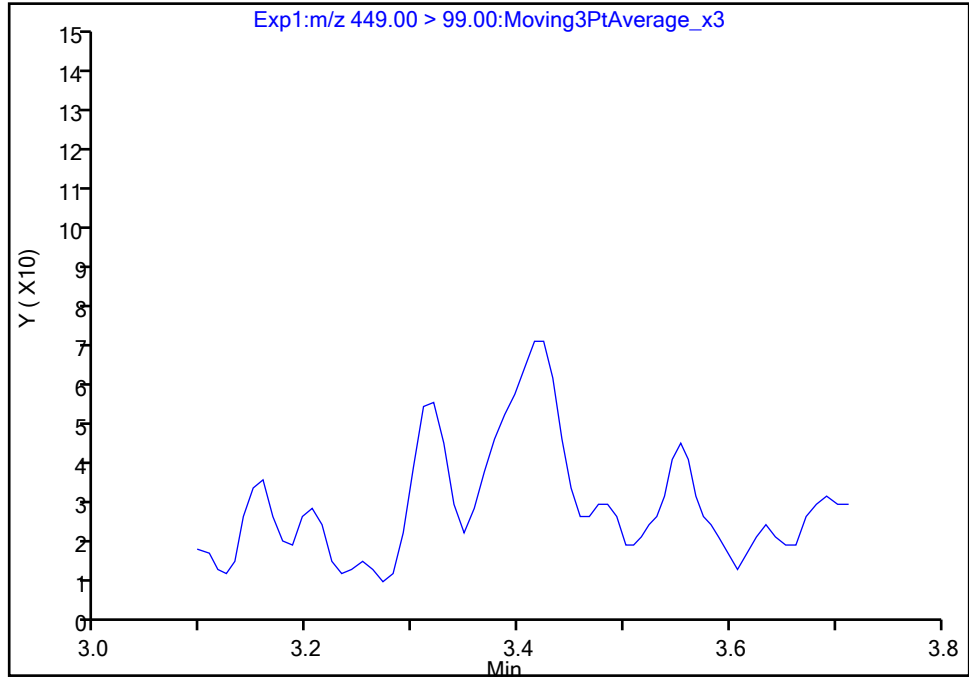
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d
Injection Date: 27-Oct-2020 19:17:30 Instrument ID: LC812
Lims ID: 480-176996-C-1-A Lab Sample ID: 200-176996-1
Client ID: EQUIP BLANK
Operator ID: lc812tech ALS Bottle#: 14 Worklist Smp#: 17
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

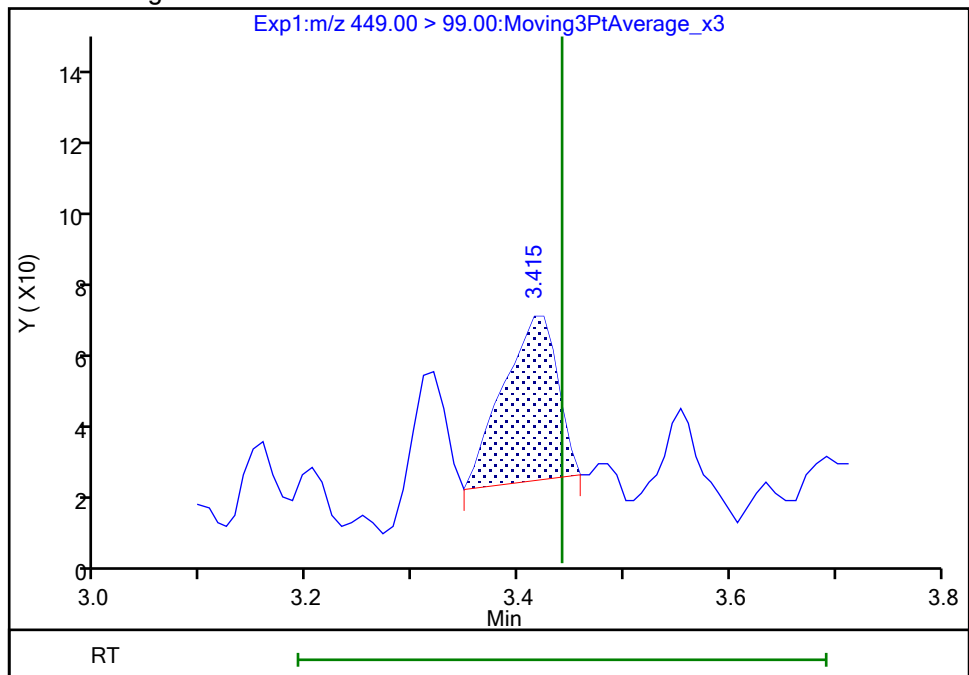
Not Detected
Expected RT: 3.44

Processing Integration Results



Manual Integration Results

RT: 3.42
Area: 159
Amount: 0.001146
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 09:05:05

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

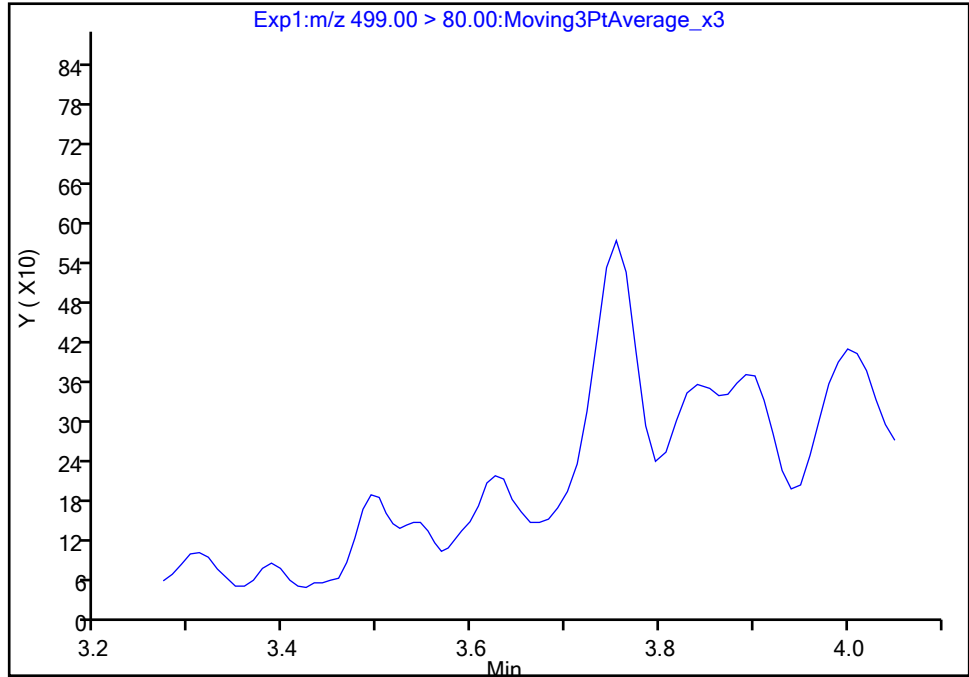
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d
Injection Date: 27-Oct-2020 19:17:30 Instrument ID: LC812
Lims ID: 480-176996-C-1-A Lab Sample ID: 200-176996-1
Client ID: EQUIP BLANK
Operator ID: lc812tech ALS Bottle#: 14 Worklist Smp#: 17
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

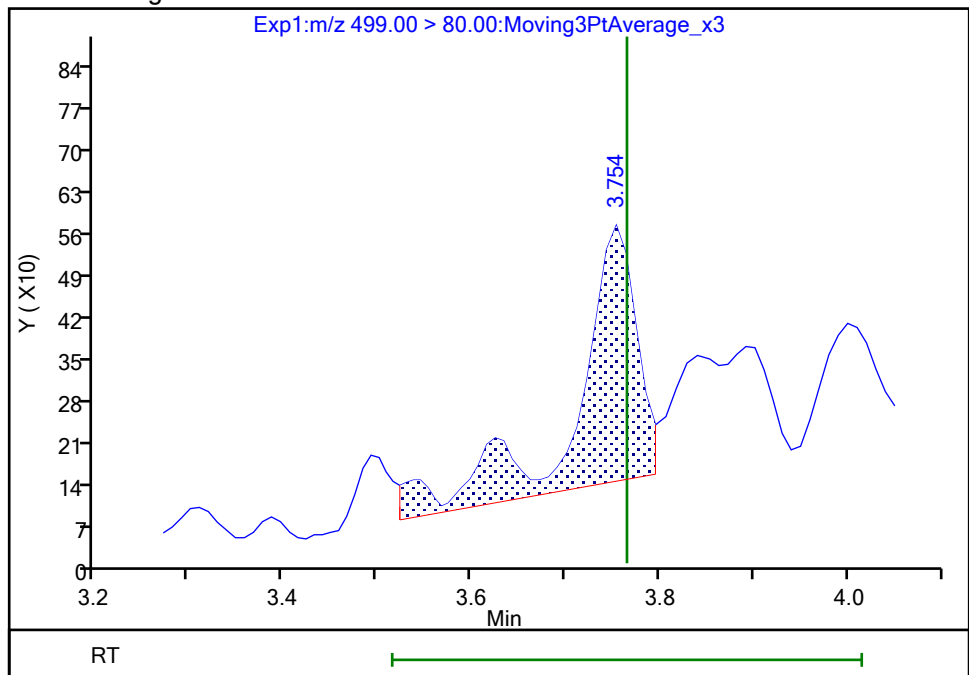
Signal: 1

Not Detected
Expected RT: 3.77

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:06:17

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

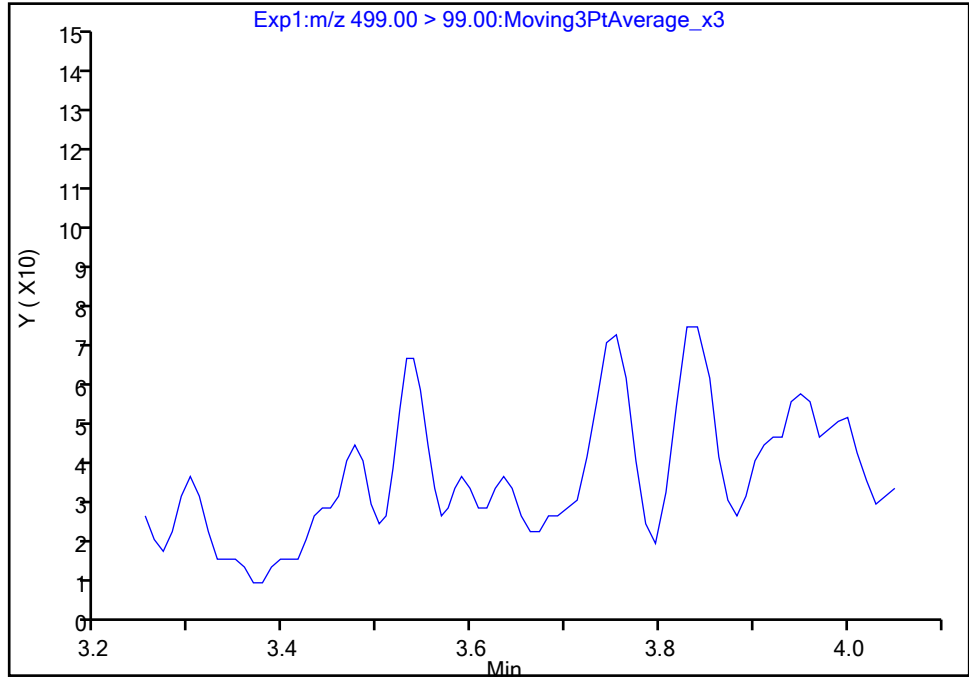
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d
Injection Date: 27-Oct-2020 19:17:30 Instrument ID: LC812
Lims ID: 480-176996-C-1-A Lab Sample ID: 200-176996-1
Client ID: EQUIP BLANK
Operator ID: lc812tech ALS Bottle#: 14 Worklist Smp#: 17
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

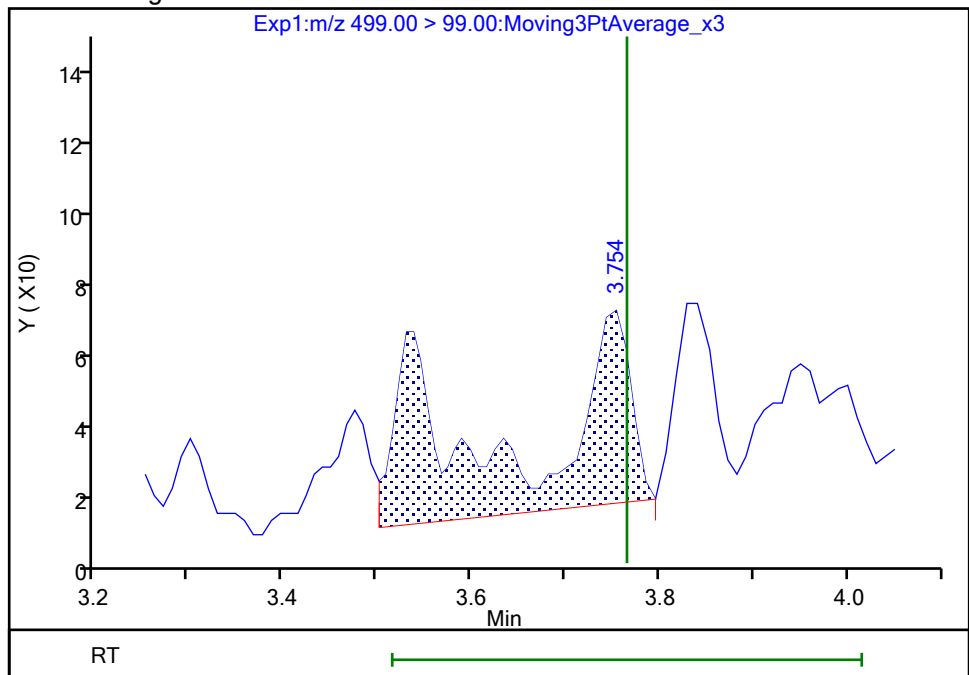
Not Detected
Expected RT: 3.77

Processing Integration Results



Manual Integration Results

RT: 3.75
Area: 409
Amount: 0.004622
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 09:06:32

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 208 of 906

Eurofins TestAmerica, Burlington

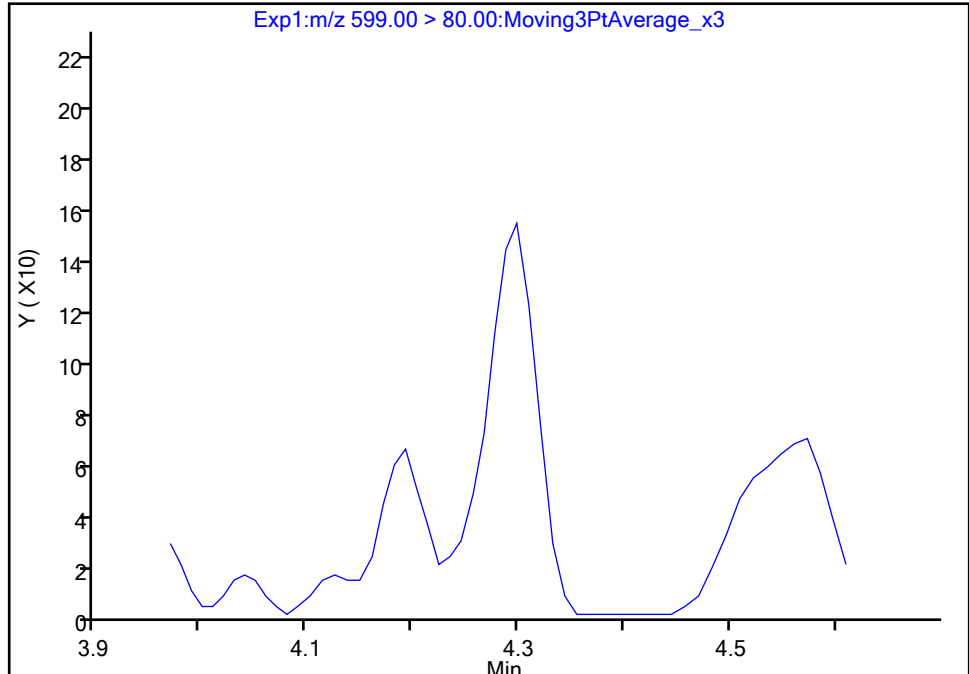
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d
Injection Date: 27-Oct-2020 19:17:30 Instrument ID: LC812
Lims ID: 480-176996-C-1-A Lab Sample ID: 200-176996-1
Client ID: EQUIP BLANK
Operator ID: lc812tech ALS Bottle#: 14 Worklist Smp#: 17
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

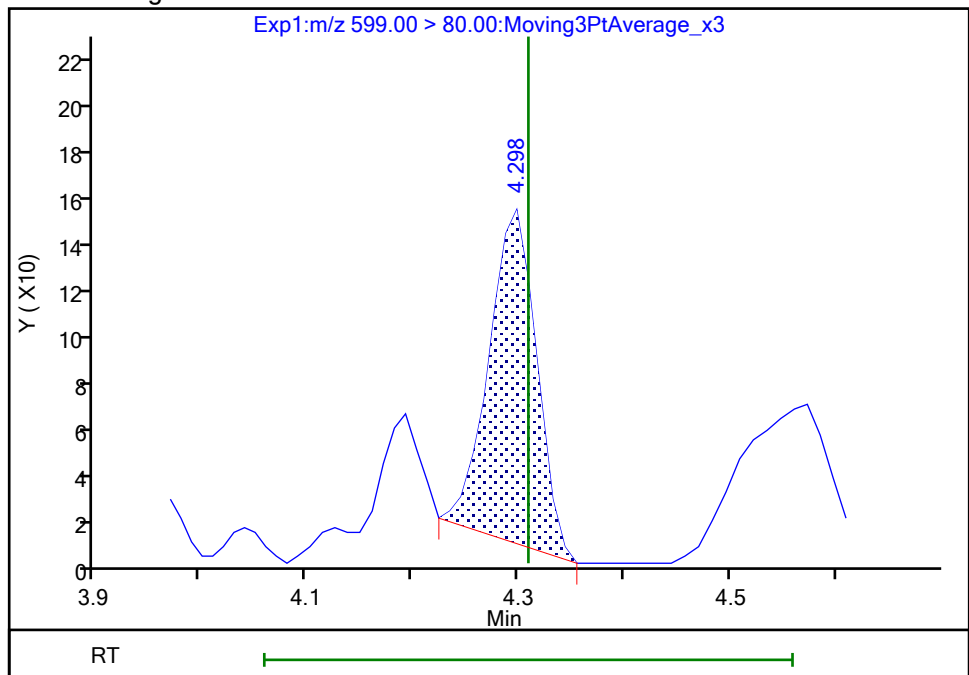
Not Detected
Expected RT: 4.31

Processing Integration Results



Manual Integration Results

RT: 4.30
Area: 438
Amount: 0.001568
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 09:08:35

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

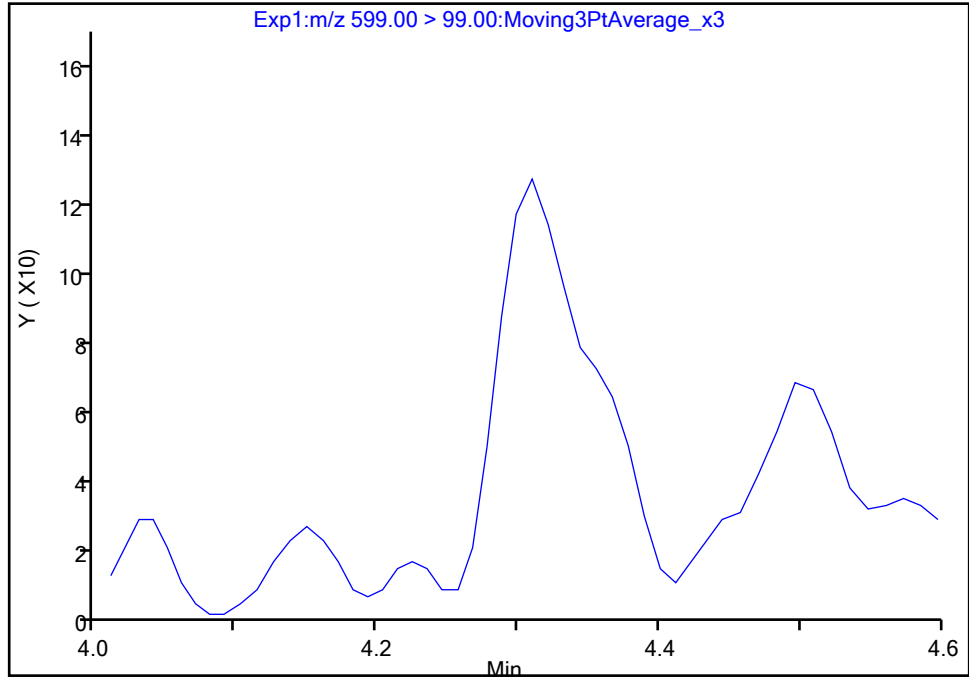
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d
Injection Date: 27-Oct-2020 19:17:30 Instrument ID: LC812
Lims ID: 480-176996-C-1-A Lab Sample ID: 200-176996-1
Client ID: EQUIP BLANK
Operator ID: lc812tech ALS Bottle#: 14 Worklist Smp#: 17
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

29 Perfluorodecanesulfonic acid, CAS: 335-77-3

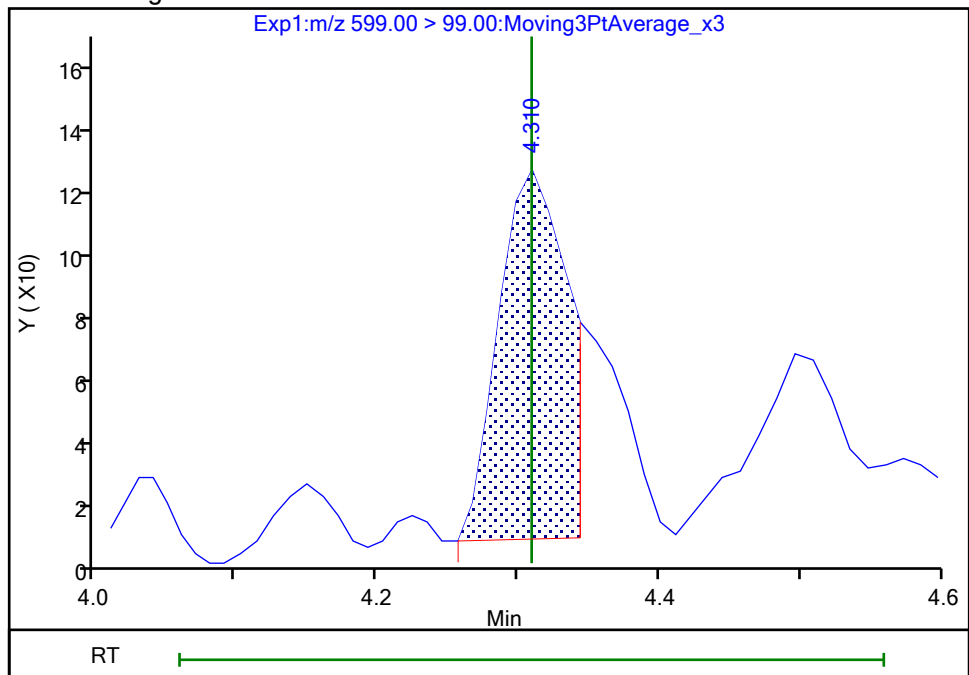
Signal: 2

Not Detected
Expected RT: 4.31

Processing Integration Results



Manual Integration Results



RT: 4.31
Area: 380
Amount: 0.001568
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:08:41

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

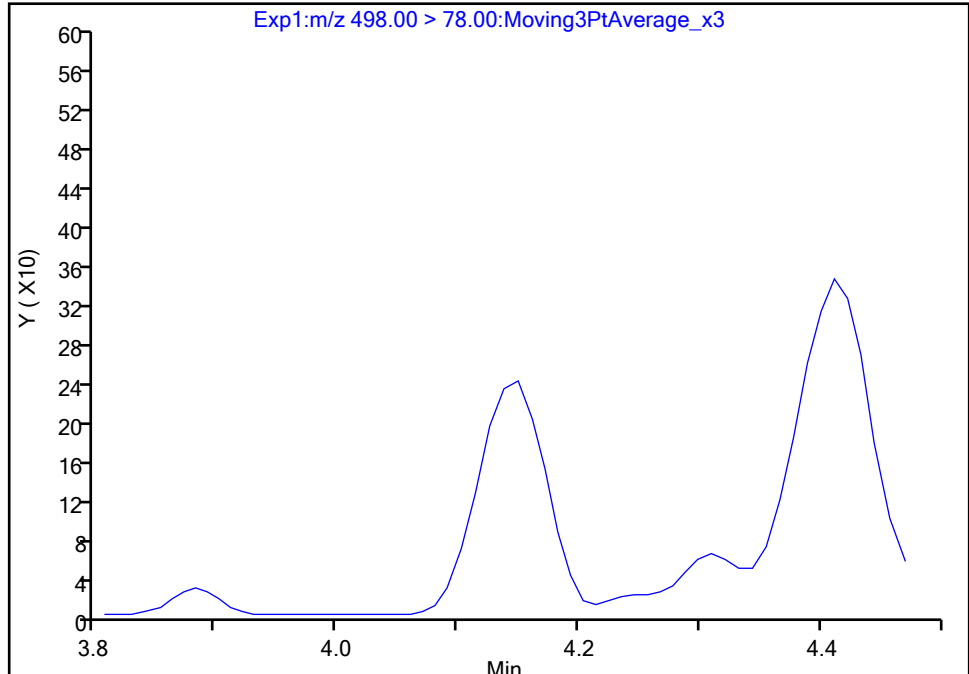
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d
Injection Date: 27-Oct-2020 19:17:30 Instrument ID: LC812
Lims ID: 480-176996-C-1-A Lab Sample ID: 200-176996-1
Client ID: EQUIP BLANK
Operator ID: lc812tech ALS Bottle#: 14 Worklist Smp#: 17
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

22 Perfluorooctanesulfonamide, CAS: 754-91-6

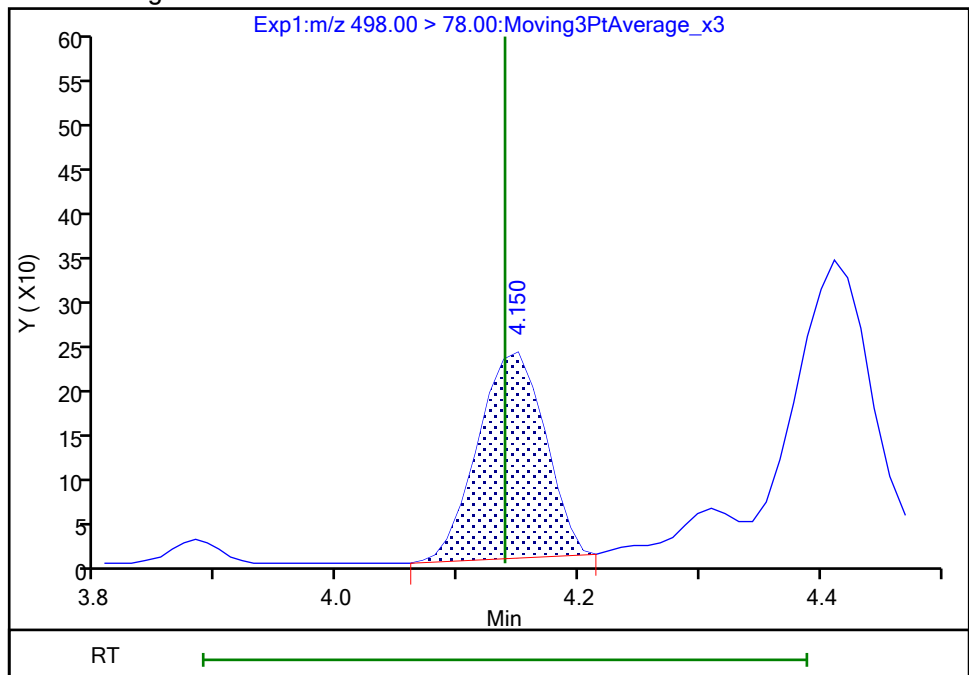
Signal: 1

Not Detected
Expected RT: 4.14

Processing Integration Results



Manual Integration Results



RT: 4.15
Area: 897
Amount: 0.002382
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:08:24

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

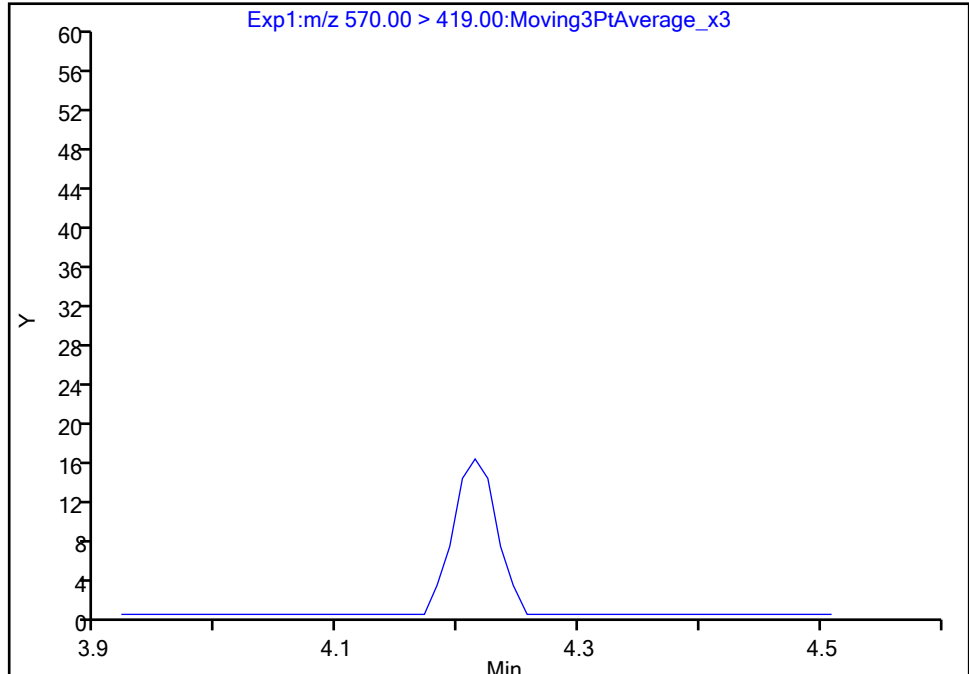
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d				
Injection Date:	27-Oct-2020 19:17:30	Instrument ID:	LC812		
Lims ID:	480-176996-C-1-A	Lab Sample ID:	200-176996-1		
Client ID:	EQUIP BLANK				
Operator ID:	lc812tech	ALS Bottle#:	14	Worklist Smp#:	17
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

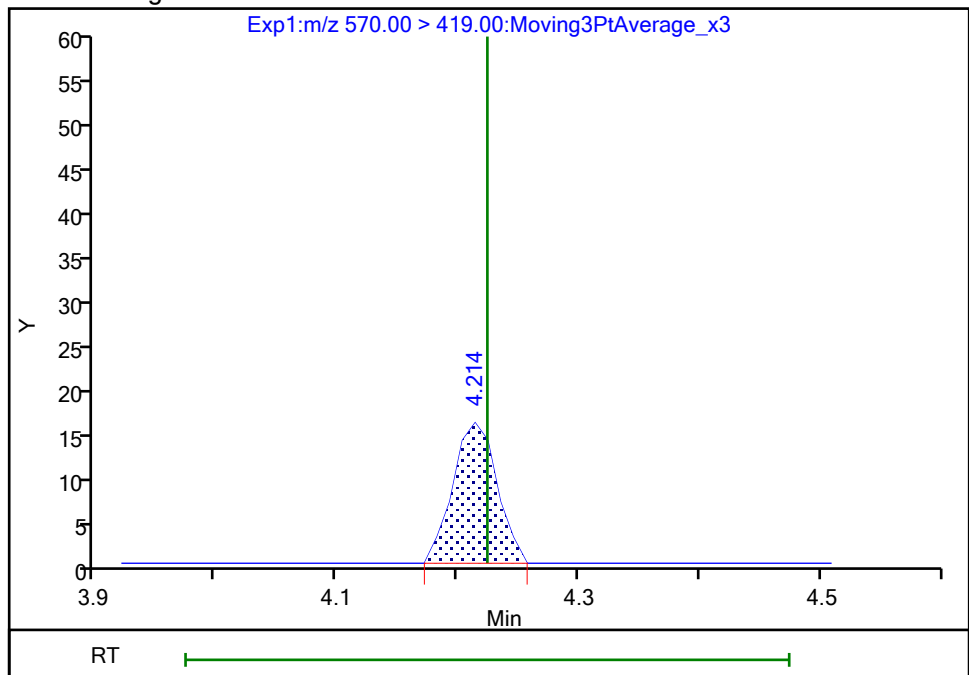
Signal: 1

Not Detected
Expected RT: 4.22

Processing Integration Results

RT: 4.21
Area: 40
Amount: 0.001999
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:08:29

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

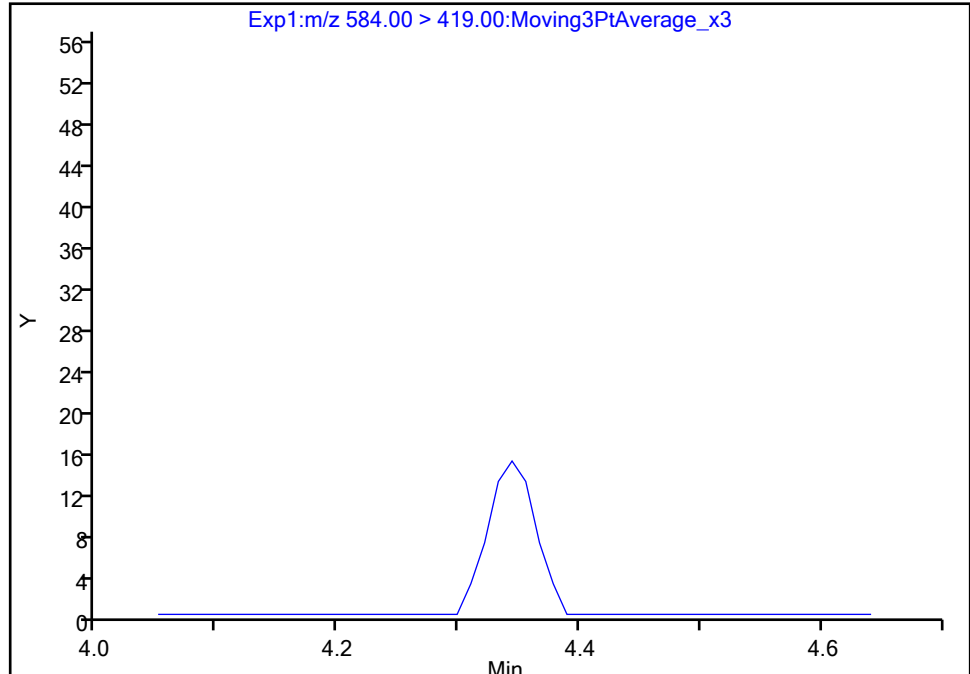
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d				
Injection Date:	27-Oct-2020 19:17:30	Instrument ID:	LC812		
Lims ID:	480-176996-C-1-A	Lab Sample ID:	200-176996-1		
Client ID:	EQUIP BLANK				
Operator ID:	lc812tech	ALS Bottle#:	14	Worklist Smp#:	17
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

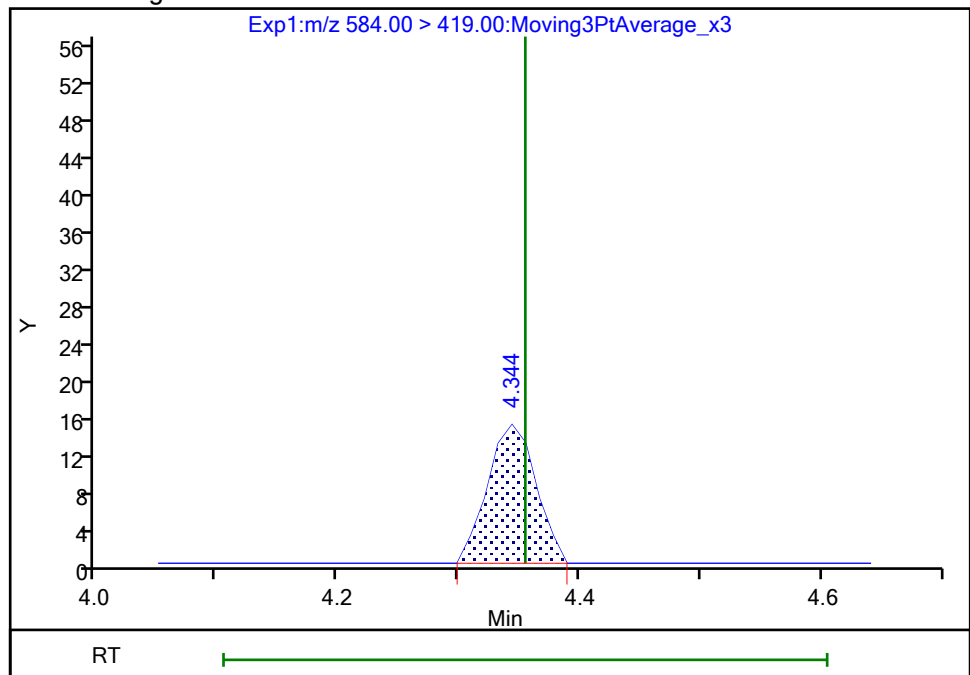
Signal: 1

Not Detected
Expected RT: 4.35

Processing Integration Results

RT: 4.34
Area: 41
Amount: 0.001846
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:09:01

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

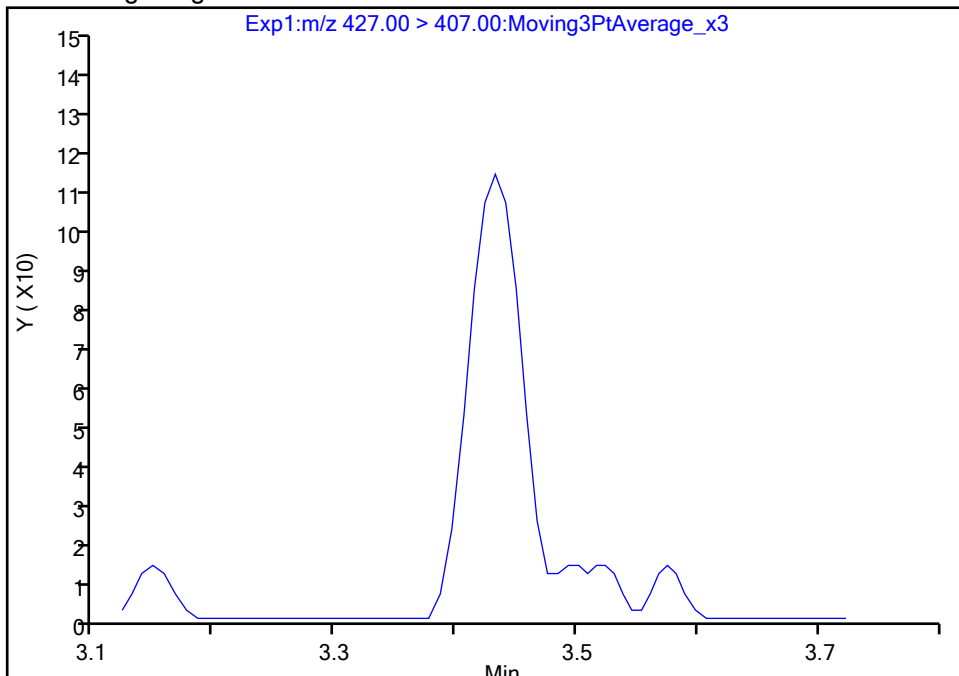
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d
Injection Date: 27-Oct-2020 19:17:30 Instrument ID: LC812
Lims ID: 480-176996-C-1-A Lab Sample ID: 200-176996-1
Client ID: EQUIP BLANK
Operator ID: lc812tech ALS Bottle#: 14 Worklist Smp#: 17
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

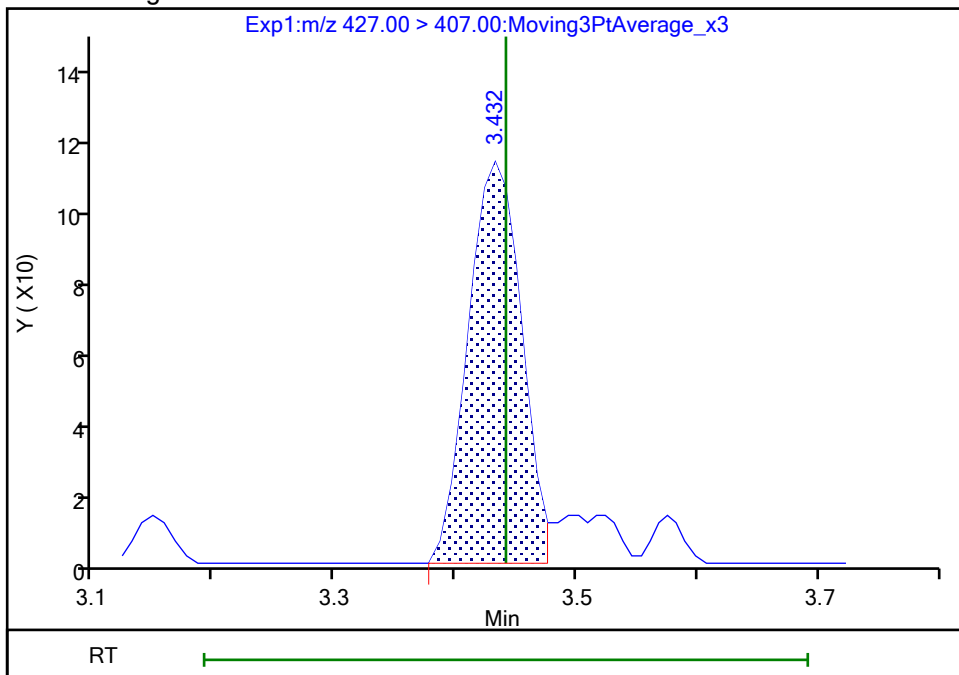
Signal: 1

Not Detected
Expected RT: 3.44

Processing Integration Results



Manual Integration Results



RT: 3.43
Area: 332
Amount: 0.006384
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:05:16

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

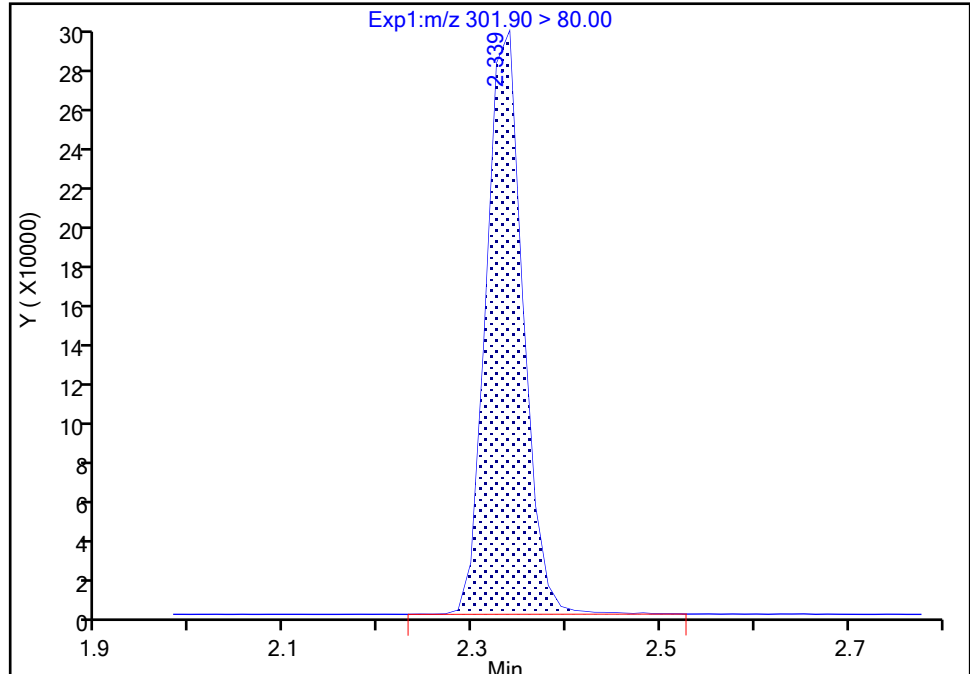
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A17.d				
Injection Date:	27-Oct-2020 19:17:30	Instrument ID:	LC812		
Lims ID:	480-176996-C-1-A	Lab Sample ID:	200-176996-1		
Client ID:	EQUIP BLANK				
Operator ID:	lc812tech	ALS Bottle#:	14	Worklist Smp#:	17
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

D 47 13C3 PFBS, CAS: STL02337

Signal: 1

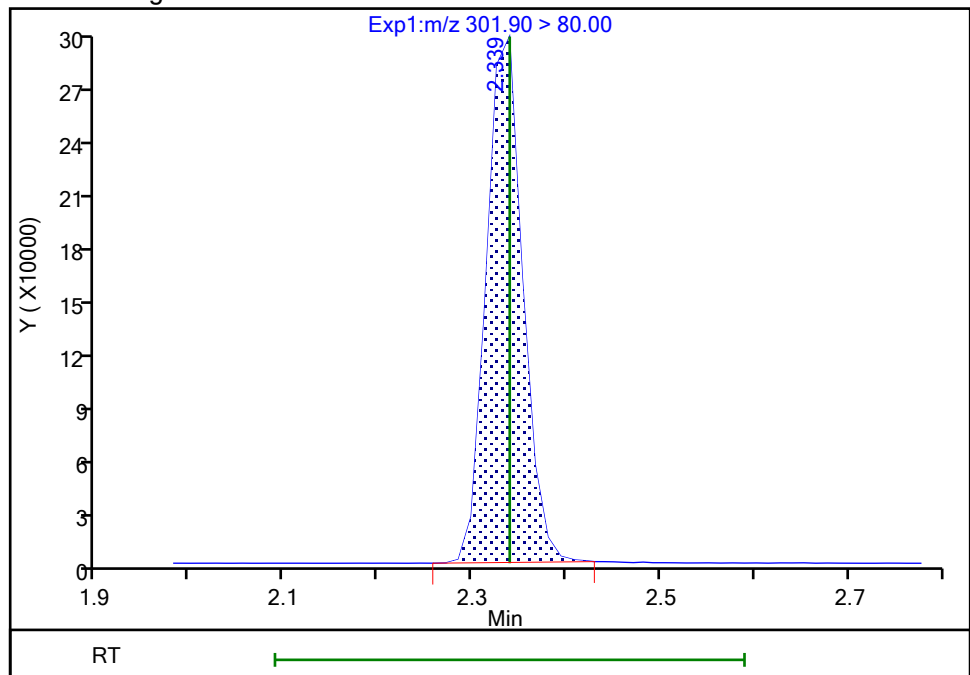
RT: 2.34
Area: 795186
Amount: 1.185717
Amount Units: ng/ml

Processing Integration Results



RT: 2.34
Area: 788727
Amount: 1.176086
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:03:24

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Client Sample ID: TPW-33R Lab Sample ID: 480-176996-2
 Matrix: Water Lab File ID: PA201027A18.d
 Analysis Method: 537 (modified) Date Collected: 10/21/2020 09:00
 Extraction Method: 3535 Date Extracted: 10/27/2020 09:15
 Sample wt/vol: 292.7 (mL) Date Analyzed: 10/27/2020 19:25
 Con. Extract Vol.: 10 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: C-18 ID: 4.6 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 160481 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	1.8	J	4.3	0.97
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		1.7	0.92
307-24-4	Perfluorohexanoic acid (PFHxA)	0.75	J	1.7	0.71
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.50	J	1.7	0.39
335-67-1	Perfluorooctanoic acid (PFOA)	1.3	J	1.7	0.84
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.7	0.50
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.7	0.39
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.62
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.7	0.39
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.37
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.50
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.71	J	1.7	0.54
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	3.8		1.7	0.57
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.33
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	6.0		1.7	0.74
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.41
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.49
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.3	0.67
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.3	0.79
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.3	0.61
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.56

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Client Sample ID: TPW-33R Lab Sample ID: 480-176996-2
 Matrix: Water Lab File ID: PA201027A18.d
 Analysis Method: 537 (modified) Date Collected: 10/21/2020 09:00
 Extraction Method: 3535 Date Extracted: 10/27/2020 09:15
 Sample wt/vol: 292.7 (mL) Date Analyzed: 10/27/2020 19:25
 Con. Extract Vol.: 10 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: C-18 ID: 4.6 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 160481 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	98		50-150
STL01892	13C4 PFHpA	99		50-150
STL00990	13C4 PFOA	94		50-150
STL00991	13C4 PFOS	101		50-150
STL00995	13C5 PFNA	93		50-150
STL00992	13C4 PFBA	84		25-150
STL00993	13C2 PFHxA	104		50-150
STL00996	13C2 PFDA	84		50-150
STL00997	13C2 PFUnA	82		50-150
STL00998	13C2 PFDoA	69		50-150
STL01056	13C8 FOSA	84		25-150
STL01893	13C5 PFPeA	96		25-150
STL02116	13C2 PFTeDA	71		50-150
STL02118	d3-NMeFOSAA	75		50-150
STL02117	d5-NEtFOSAA	82		50-150
STL02279	M2-6:2 FTS	102		25-150
STL02280	M2-8:2 FTS	95		25-150
STL02337	13C3 PFBS	93		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d
 Lims ID: 480-176996-C-2-A
 Client ID: TPW-33R
 Sample Type: Client
 Inject. Date: 27-Oct-2020 19:25:47 ALS Bottle#: 15 Worklist Smp#: 18
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: 480-176996-C-2-A
 Misc. Info.: 200-0043412-018 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Method: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 28-Oct-2020 13:19:14 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1652

First Level Reviewer: khanphomeea

Date: 28-Oct-2020 09:17:54

Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.981	1.981	0.0	0.576	798648	1.05		83.9	11037	
2 Perfluorobutanoic acid										M
212.90 > 169.00	1.981	1.990	-0.009	1.000	32036	0.0536			8.6	M
D 3 13C5 PFPeA										
267.90 > 223.00	2.312	2.326	-0.014	0.672	652130	1.19		95.6	1804	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.299	2.326	-0.027	0.994	8483	0.0154			0.2	M
D 47 13C3 PFBS										M
301.90 > 80.00	2.326	2.339	-0.013	0.676	719119	1.08		93.1	43838	M
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.340	2.353	-0.013	1.006	12873	0.0209	Target=2.07		4.4	
298.90 > 99.00	2.340	2.353	-0.013	1.006	5898		2.18(1.04-3.11)		1.9	
D 60 M2-4:2 FTS										M
329.00 > 81.00	2.653	2.665	-0.012	0.771	69089	1.38		119	15.7	M
61 1H,1H,2H,2H-perfluorohexanesulfo										M
327.00 > 307.00	2.653	2.665	-0.012	1.000	286	0.002990			5.4	M
D 7 13C2 PFHxA										
315.00 > 270.00	2.691	2.703	-0.012	0.782	727247	1.29		104	3332	
6 Perfluorohexanoic acid										M
313.00 > 269.00	2.691	2.703	-0.012	1.000	12849	0.0219	Target=12.44		1.7	
313.00 > 119.00	2.691	2.703	-0.012	1.000	1184		10.85(6.22-18.66)		2.7	M
70 Perfluoropentanesulfonic acid										M
349.00 > 80.00	2.691	2.703	-0.012	0.876	3094	0.005566	Target=3.64		1.6	M
349.00 > 99.00	2.691	2.703	-0.012	0.876	690		4.48(1.82-5.46)		0.5	M
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.802	2.810	-0.008	0.814	85273	1.63		130	875	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 11 18O2 PFHxS										
403.00 > 84.00	3.073	3.084	-0.011	0.893	555169	1.16		98.4	2679	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.073	3.084	-0.011	1.000	57464	0.1108	Target=4.60		38.3	
399.00 > 99.00	3.073	3.084	-0.011	1.000	10016		5.74(2.30-6.91)		13.3	M
D 9 13C4 PFHpA										
367.00 > 322.00	3.073	3.084	-0.011	0.893	633174	1.24		99.1	4085	
10 Perfluoroheptanoic acid										M
363.00 > 319.00	3.073	3.084	-0.011	1.000	7473	0.0147	Target=3.34		1.3	M
363.00 > 169.00	3.073	3.084	-0.011	1.000	1569		4.76(1.67-5.01)		5.1	M
77 DONA										M
377.00 > 251.00	3.116	3.124	-0.008	0.830	1218	0.001007	Target=2.44		2.9	M
377.00 > 85.00	3.132	3.124	0.008	0.834	388		3.14(1.22-3.67)		1.2	M
D 12 M2-6:2 FTS										
429.00 > 81.00	3.433	3.441	-0.008	0.997	77056	1.21		102	184	
13 1H,1H,2H,2H-perfluorooctanesulfo										M
427.00 > 407.00	3.433	3.441	-0.008	1.000	396	0.007647			10.4	M
D 14 13C4 PFOA										
417.00 > 372.00	3.441	3.450	-0.009	1.000	612429	1.17		93.6	3518	
* 62 13C2 PFOA										
415.00 > 370.00	3.441	3.450	-0.009		664328	1.25			3472	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.441	3.458	-0.017	1.000	18608	0.0368	Target=2.29		6.9	M
413.00 > 169.00	3.450	3.458	-0.008	1.003	10802		1.72(1.14-3.43)		22.4	M
D 18 13C4 PFOS										
503.00 > 80.00	3.755	3.765	-0.010	1.091	469213	1.20		101	1250	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.755	3.765	-0.010	1.000	75138	0.1761	Target=7.10		41.0	M
499.00 > 99.00	3.755	3.765	-0.010	1.000	9092		8.26(3.55-10.64)		37.4	M
D 19 13C5 PFNA										
468.00 > 423.00	3.776	3.786	-0.010	1.097	511146	1.16		92.7	3633	
20 Perfluorononanoic acid										M
463.00 > 419.00	3.776	3.786	-0.010	1.000	1872	0.004495	Target=5.83		0.8	M
463.00 > 169.00	3.776	3.786	-0.010	1.000	292		6.41(2.91-8.74)		4.4	M
69 9-Chlorohexadecafluoro-3-oxanona										M
531.00 > 351.00	3.912	3.922	-0.010	1.042	577	0.001537			5.7	M
68 Perfluorononanesulfonic acid										M
549.00 > 80.00	4.042	4.052	-0.010	1.076	589	0.001747	Target=3.38		3.3	M
549.00 > 99.00	4.042	4.052	-0.010	1.076	150		3.93(1.69-5.08)		1.3	M
D 23 13C2 PFDA										
515.00 > 470.00	4.072	4.082	-0.010	1.183	443328	1.05		83.9	3724	
24 Perfluorodecanoic acid										M
513.00 > 469.00	4.072	4.082	-0.010	1.000	1146	0.003266	Target=6.81		2.3	M
513.00 > 169.00	4.072	4.082	-0.010	1.000	301		3.81(3.41-10.22)		2.6	M
D 26 M2-8:2 FTS										
529.00 > 81.00	4.082	4.092	-0.010	1.186	85631	1.14		95.3	208	M
25 1H,1H,2H,2H-perfluorodecanesulfo										M
527.00 > 507.00	4.062	4.092	-0.030	0.995	74219	0.002614			3.6	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 21 13C8 FOSA										
506.00 > 78.00	4.139	4.139	0.0	1.203	719297	1.06		84.5	3250	
22 Perfluorooctanesulfonamide										M
498.00 > 78.00	4.139	4.139	0.0	1.000	2287	0.004251			11.7	M
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.214	4.214	0.0	1.224	22465	0.9332		74.7	396	
28 N-methylperfluorooctanesulfonami										M
570.00 > 419.00	4.224	4.224	0.0	1.002	40	0.002358				M
29 Perfluorodecanesulfonic acid										M
599.00 > 80.00	4.298	4.309	-0.011	1.145	1021	0.003619	Target=3.31		4.6	M
599.00 > 99.00	4.298	4.309	-0.011	1.145	559		1.83(1.66-4.97)		4.4	M
D 30 13C2 PFUnA										
565.00 > 520.00	4.332	4.343	-0.011	1.259	326692	1.02		81.9	5278	
31 Perfluoroundecanoic acid										M
563.00 > 519.00	4.321	4.343	-0.022	0.997	1174	0.004554	Target=6.57		2.3	M
563.00 > 169.00	4.332	4.343	-0.011	1.000	131		8.96(3.28-9.85)		2.6	M
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.343	4.343	0.0	1.262	26436	1.02		81.7	441	
33 N-ethylperfluorooctanesulfonamid										M
584.00 > 419.00	4.343	4.355	-0.012	1.000	204	0.0105			4.5	M
66 11-Chloroeicosafuoro-3-oxaundec										M
631.00 > 451.00	4.422	4.422	0.0	1.178	641	0.001979			18.1	M
D 36 13C2 PFDaA										
615.00 > 570.00	4.561	4.561	0.0	1.325	290476	0.8611		68.9	3074	
37 Perfluorododecanoic acid										RM
613.00 > 569.00	4.561	4.561	0.0	1.000	863	0.003808	Target=5.16		1.7	R
613.00 > 169.00	4.548	4.561	-0.013	0.997	77		11.21(2.58-7.75)		1.6	M
74 1H,1H,2H,2H-perfluorododecanesul										M
627.00 > 607.00	4.585	4.585	0.0	1.123	37	0.002353			1.9	M
75 Perfluorododecanesulfonic acid (										RM
699.00 > 80.00	4.736	4.736	0.0	1.261	352	0.003888	Target=0.45		1.9	RM
699.00 > 99.00	4.727	4.736	-0.009	1.259	412		0.85(0.22-0.67)		4.1	M
41 Perfluorotridecanoic acid										RM
663.00 > 619.00	4.772	4.772	0.0	1.046	475	0.002468	Target=3.30		0.6	RM
663.00 > 169.00	4.763	4.772	-0.009	1.044	305		1.56(1.65-4.95)		12.8	M
D 43 13C2 PFTeDA										
715.00 > 670.00	4.960	4.969	-0.009	1.441	211770	0.8813		70.5	3033	
42 Perfluorotetradecanoic acid										M
713.00 > 169.00	4.979	4.969	0.010	1.004	131	0.003376	Target=1.06		4.2	M
713.00 > 219.00	4.960	4.969	-0.009	1.000	174		0.75(0.53-1.59)		6.1	M
D 44 13C2 PFHxDA										
815.00 > 770.00	5.319	5.329	-0.010	1.546	196003	0.7197		57.6	3588	
45 Perfluorohexadecanoic acid										M
813.00 > 769.00	5.329	5.329	0.0	1.002	1739	-0.0107	Target=3.06		2.1	
813.00 > 169.00	5.319	5.329	-0.010	1.000	790		2.20(1.53-4.58)		40.8	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
46 Perfluorooctadecanoic acid										M
913.00 > 869.00	5.685	5.694	-0.009	1.069	246	0.002099	Target=2.82		1.2	M
913.00 > 169.00	5.694	5.694	0.0	1.071	77		3.19(1.41-4.24)		4.2	M

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d

Injection Date: 27-Oct-2020 19:25:47

Instrument ID: LC812

Lims ID: 480-176996-C-2-A

Lab Sample ID: 200-176996-2

Client ID: TPW-33R

Operator ID: lc812tech

ALS Bottle#: 15

Worklist Smp#: 18

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

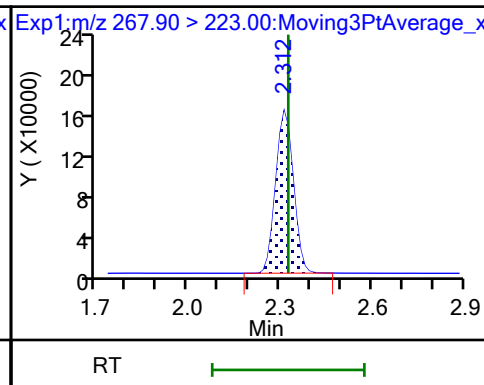
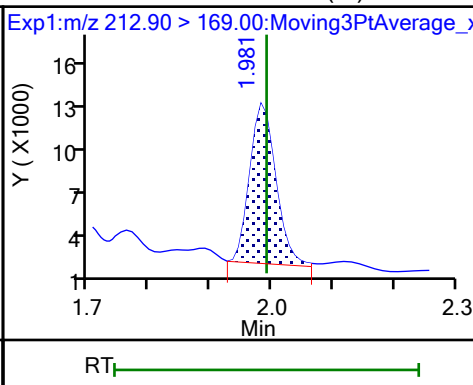
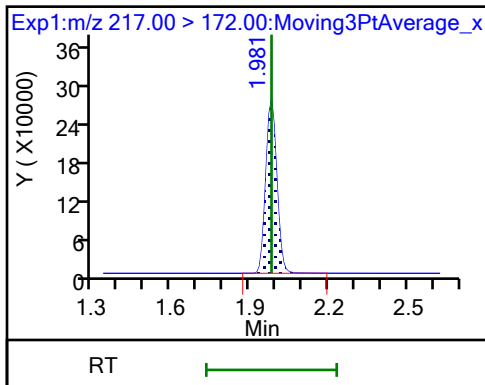
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid (M)

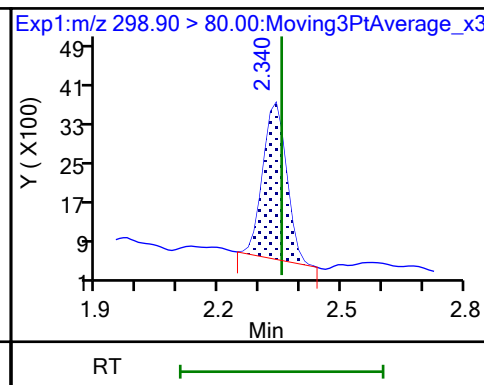
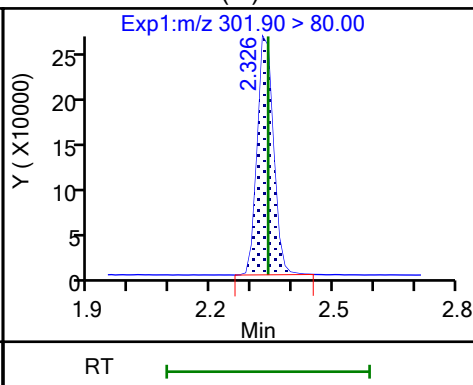
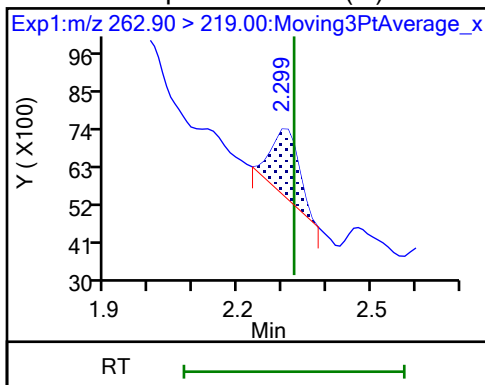
D 3 13C5 PFPeA



4 Perfluoropentanoic acid (M)

D 47 13C3 PFBS (M)

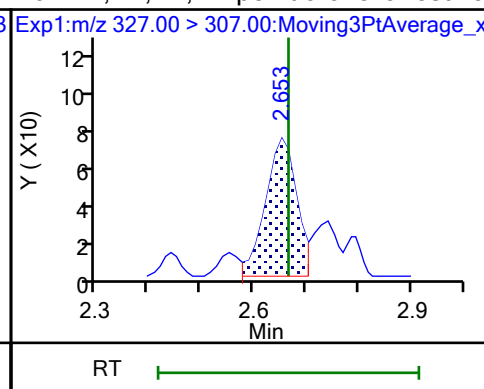
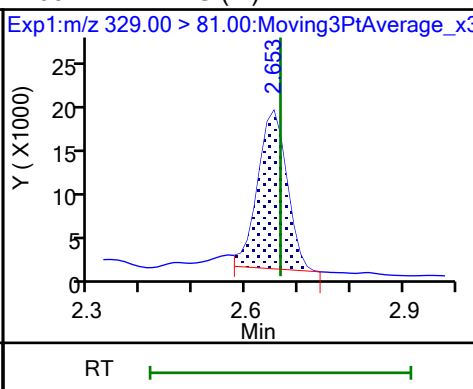
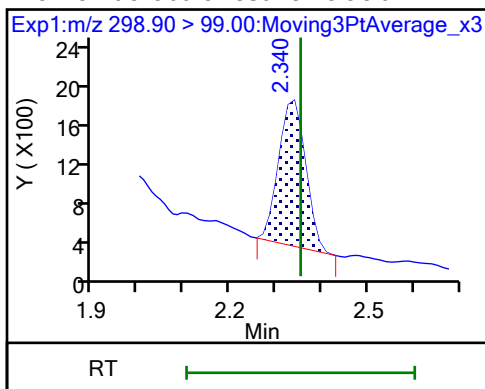
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

D 60 M2-4:2 FTS (M)

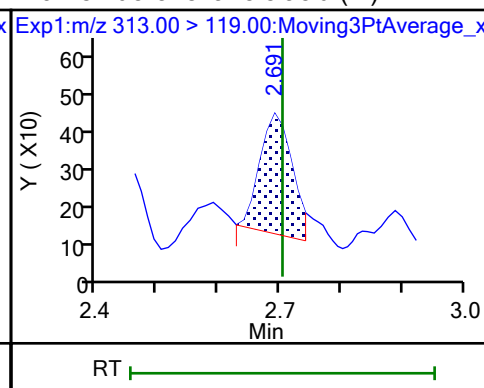
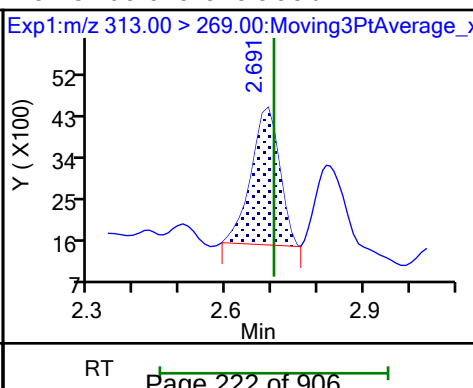
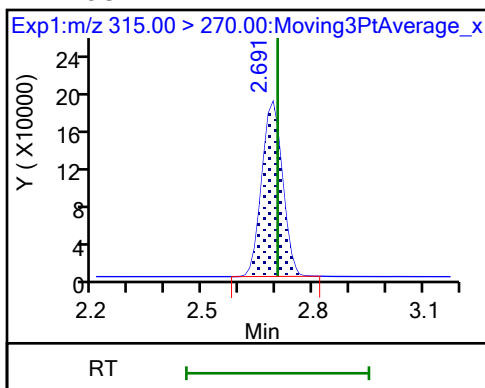
61 1H,1H,2H,2H-perfluorohexanesulfo (M)



D 7 13C2 PFHxA

6 Perfluorohexanoic acid

6 Perfluorohexanoic acid (M)

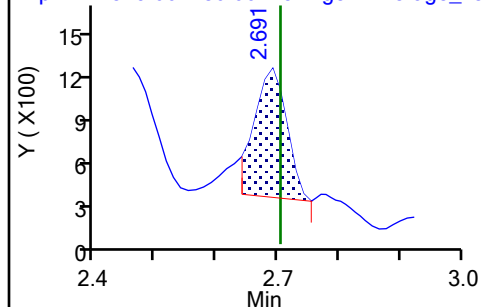


70 Perfluoropentanesulfonic acid (M)

70 Perfluoropentanesulfonic acid (M)

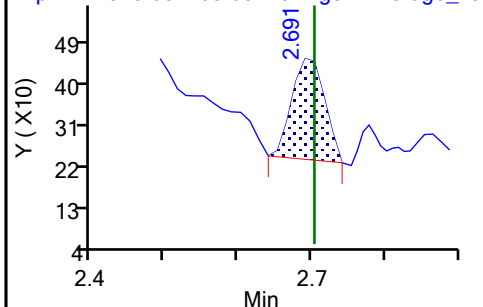
D 64 13C3 HFPO-DA

Exp1:m/z 349.00 > 80.00:Moving3PtAverage_x3



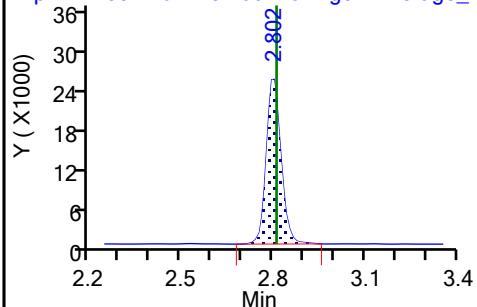
RT

Exp1:m/z 349.00 > 99.00:Moving3PtAverage_x3



RT

Exp1:m/z 332.10 > 287.00:Moving3PtAverage_x3

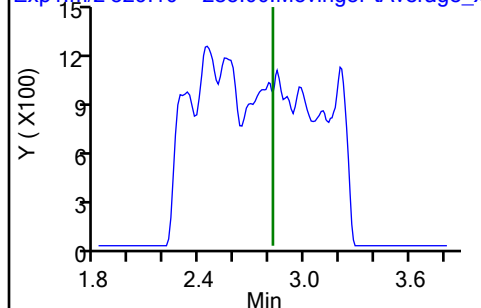


RT

67 Perfluoro(2-propoxypropanoic) ac (ND)11 18O2 PFHxS

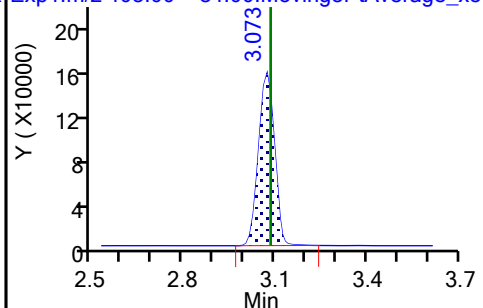
8 Perfluorohexanesulfonic acid

Exp1:m/z 329.10 > 285.00:Moving3PtAverage_x3



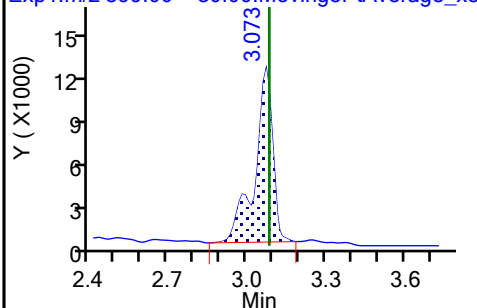
RT

Exp1:m/z 403.00 > 84.00:Moving3PtAverage_x3



RT

Exp1:m/z 399.00 > 80.00:Moving3PtAverage_x3



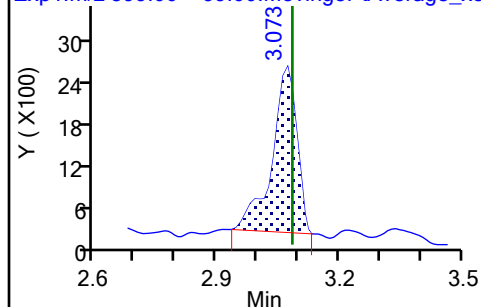
RT

8 Perfluorohexanesulfonic acid (M)

D 9 13C4 PFHpA

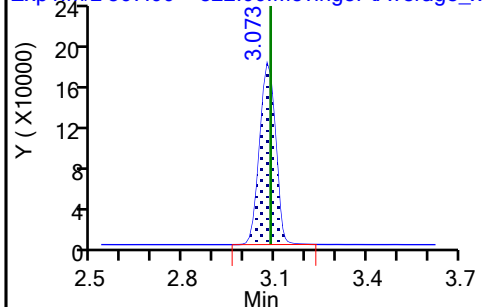
10 Perfluoroheptanoic acid (M)

Exp1:m/z 399.00 > 99.00:Moving3PtAverage_x3



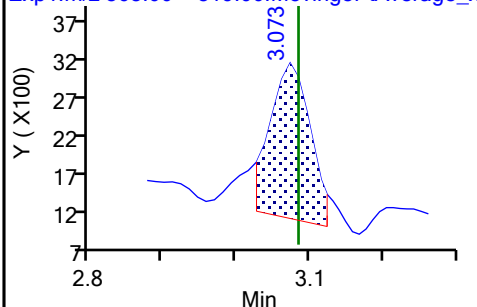
RT

Exp1:m/z 367.00 > 322.00:Moving3PtAverage_x3



RT

Exp1:m/z 363.00 > 319.00:Moving3PtAverage_x3



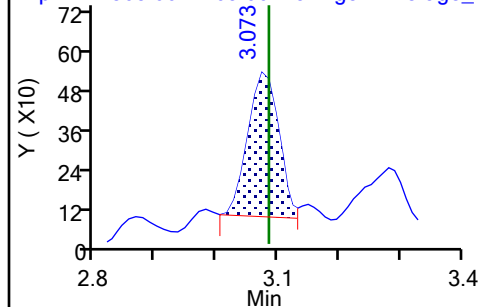
RT

10 Perfluoroheptanoic acid (M)

77 DONA (M)

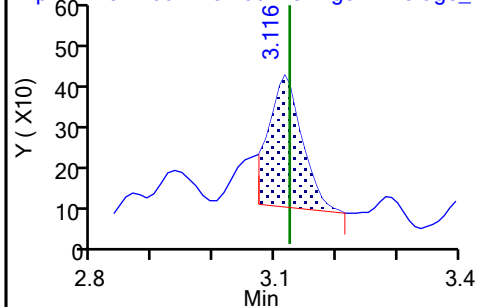
77 DONA (M)

Exp1:m/z 363.00 > 169.00:Moving3PtAverage_x3



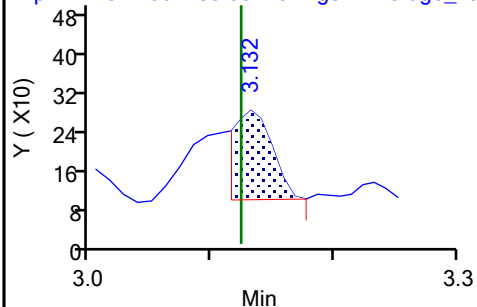
RT

Exp1:m/z 377.00 > 251.00:Moving3PtAverage_x3



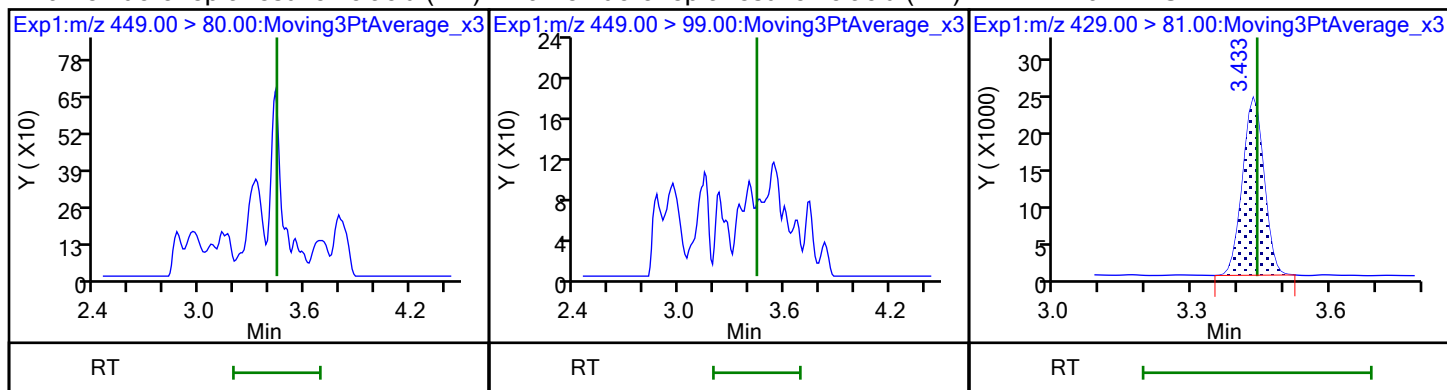
RT

Exp1:m/z 377.00 > 85.00:Moving3PtAverage_x3



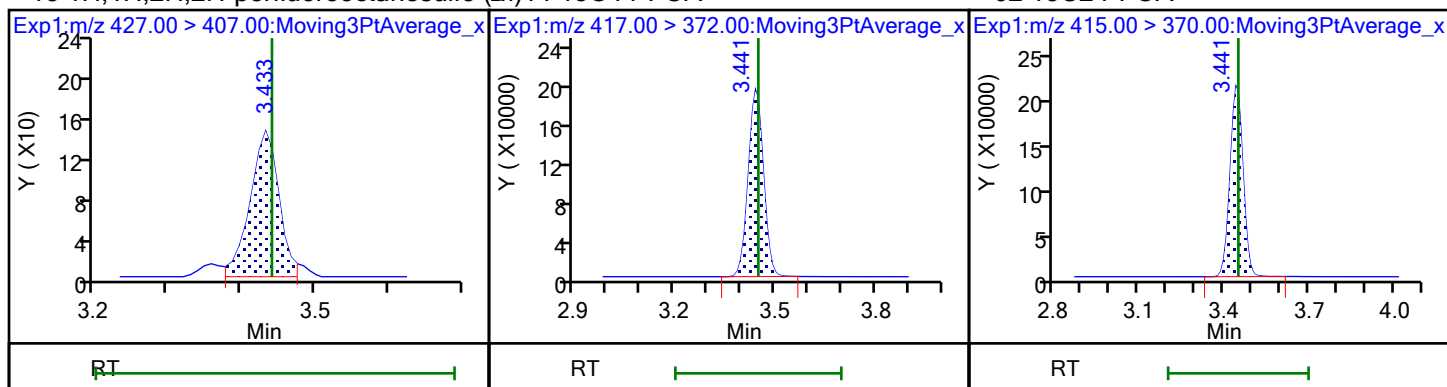
RT

16 Perfluoroheptanesulfonic acid (ND) 16 Perfluoroheptanesulfonic acid (ND) D 12 M2-6:2 FTS



13 1H,1H,2H,2H-perfluorooctanesulfo (M) 14 13C4 PFOA

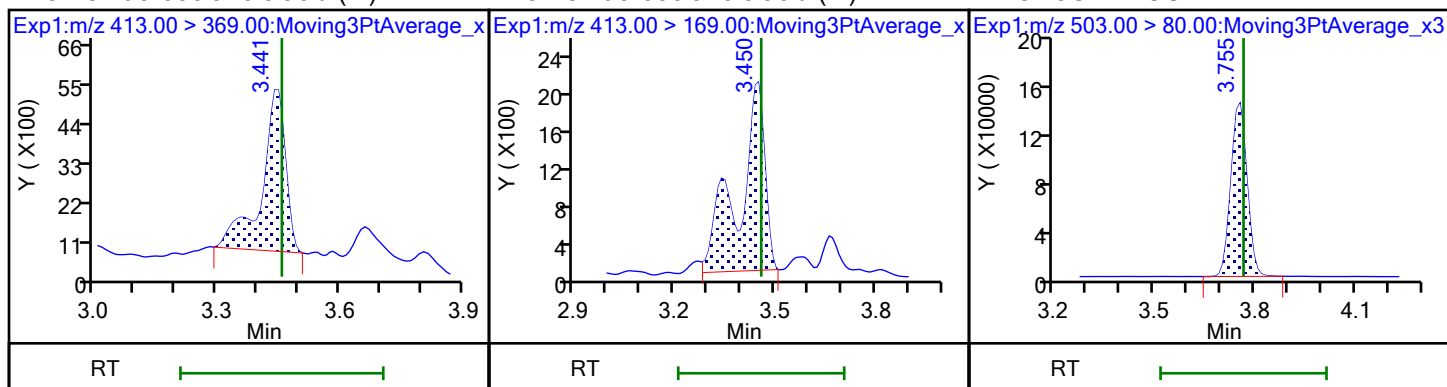
* 62 13C2 PFOA



15 Perfluorooctanoic acid (M)

15 Perfluorooctanoic acid (M)

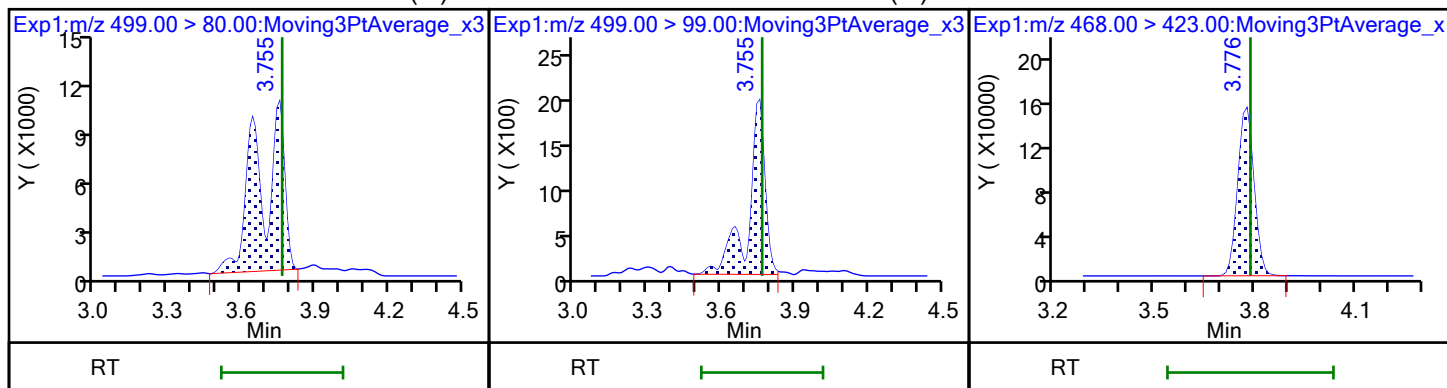
D 18 13C4 PFOS

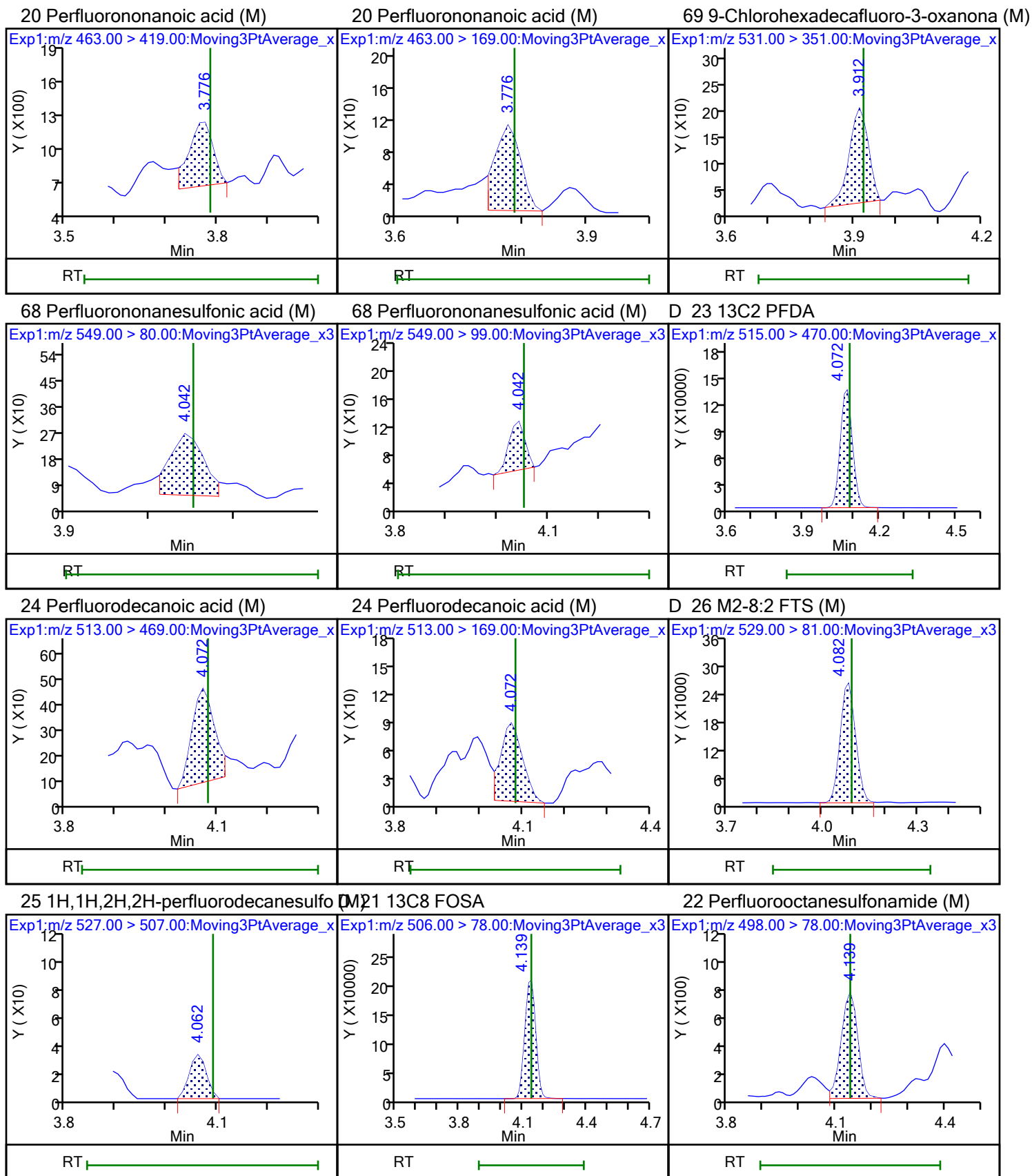


17 Perfluorooctanesulfonic acid (M)

17 Perfluorooctanesulfonic acid (M)

D 19 13C5 PFNA

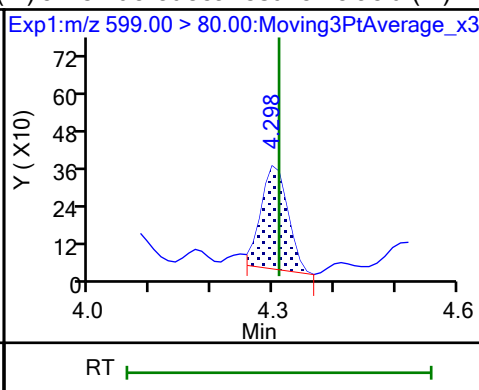
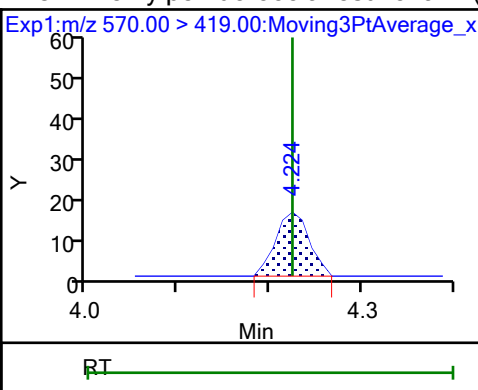
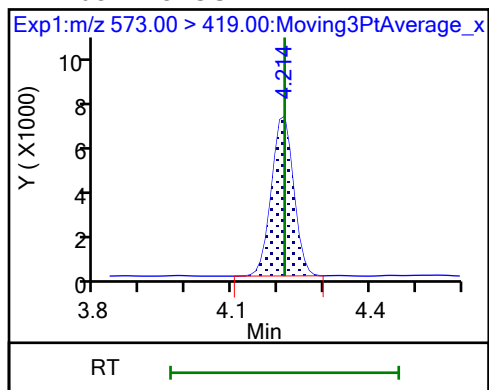




D 27 d3-NMeFOSAA

28 N-methylperfluorooctanesulfonami (M)

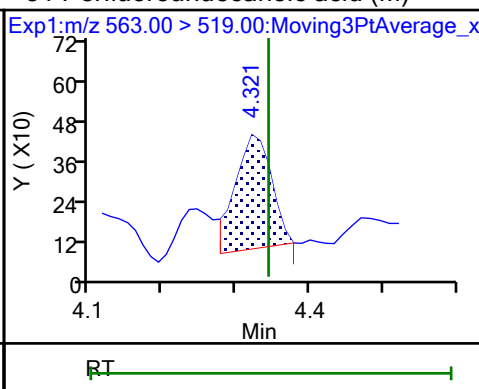
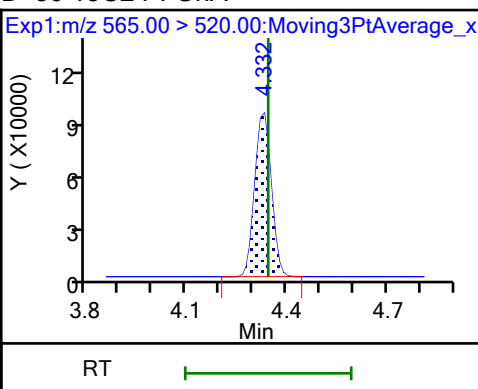
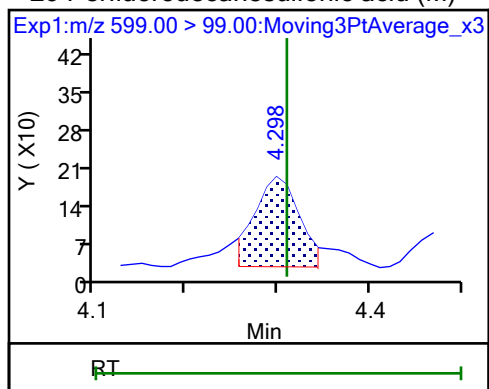
29 Perfluorodecanesulfonic acid (M)



29 Perfluorodecanesulfonic acid (M)

D 30 13C2 PFUnA

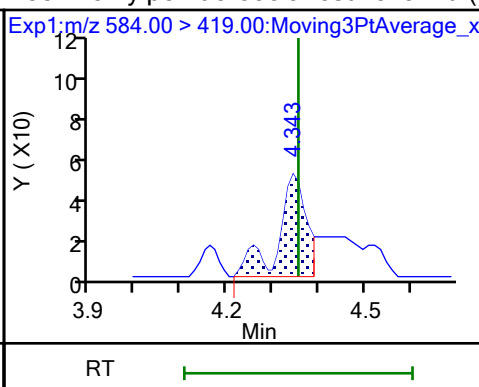
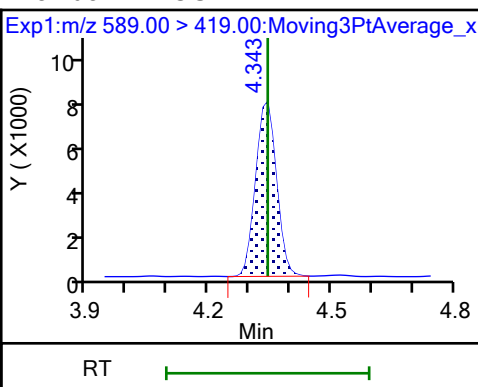
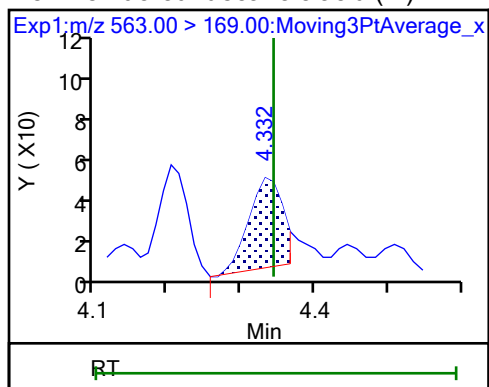
31 Perfluoroundecanoic acid (M)



31 Perfluoroundecanoic acid (M)

D 32 d5-NEtFOSAA

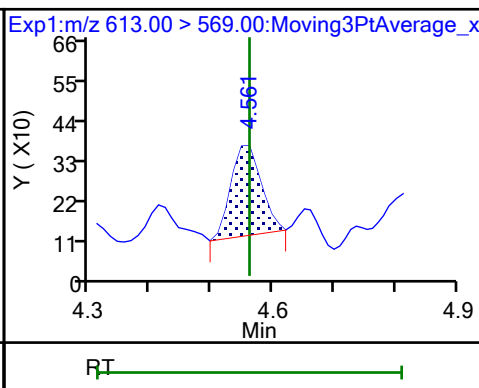
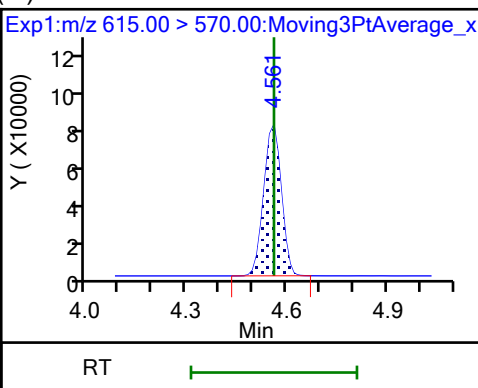
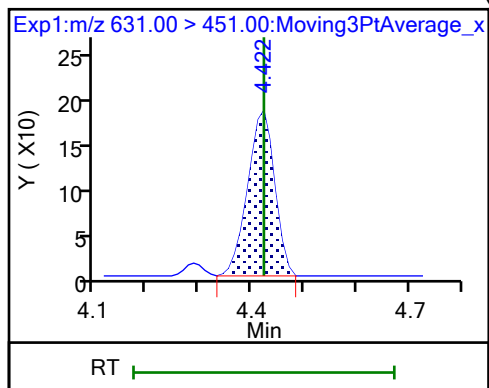
33 N-ethylperfluorooctanesulfonamid (M)



66 11-Chloroeicosafluoro-3-oxaundec (M)

36 13C2 PFDaA

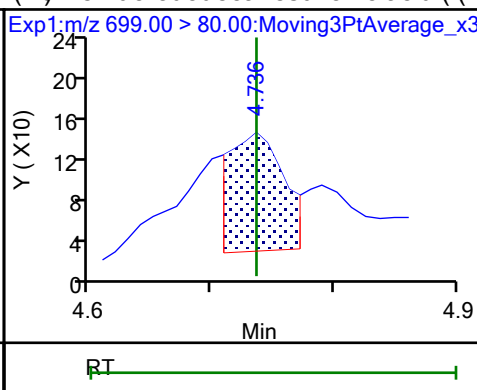
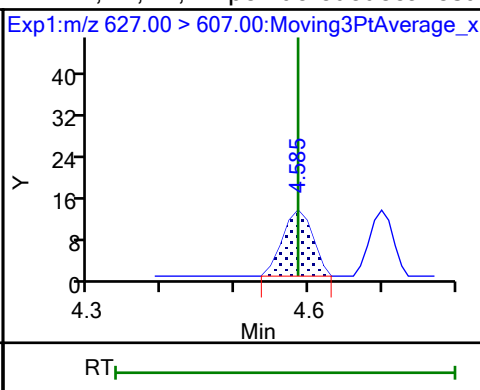
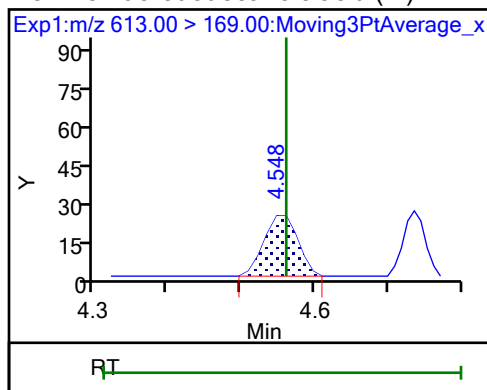
37 Perfluorododecanoic acid



37 Perfluorododecanoic acid (M)

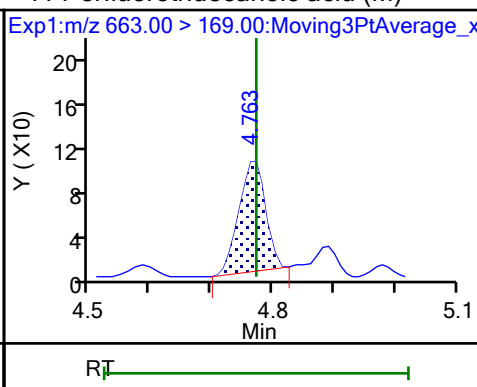
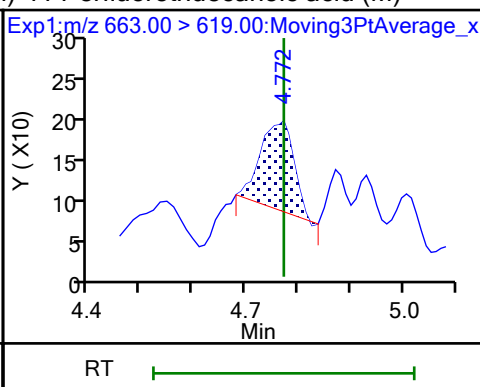
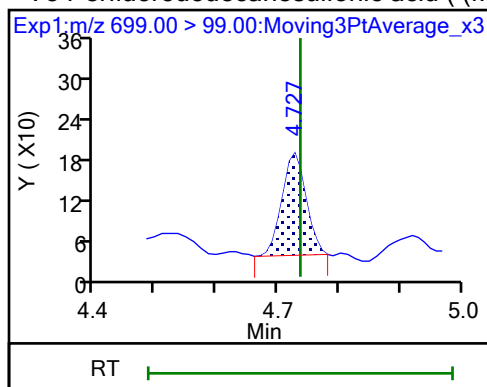
74 1H,1H,2H,2H-perfluorododecanesul (M)

75 Perfluorododecanesulfonic acid (M)



75 Perfluorododecanesulfonic acid (M) 41 Perfluorotridecanoic acid (M)

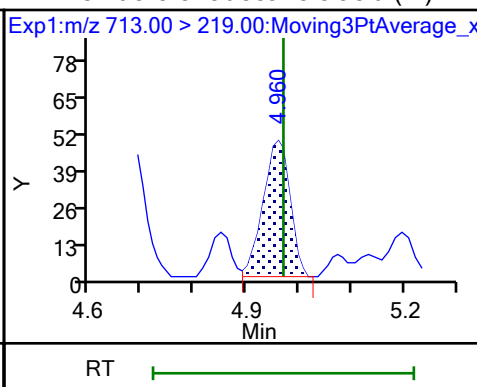
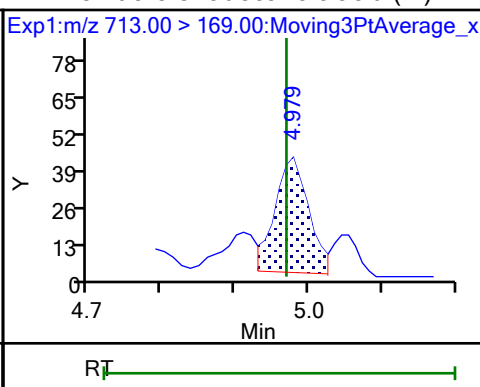
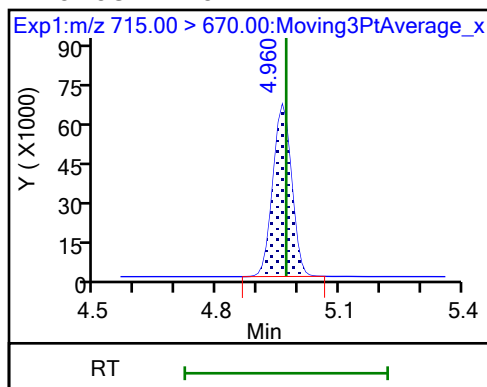
41 Perfluorotridecanoic acid (M)



D 43 13C2 PFTeDA

42 Perfluorotetradecanoic acid (M)

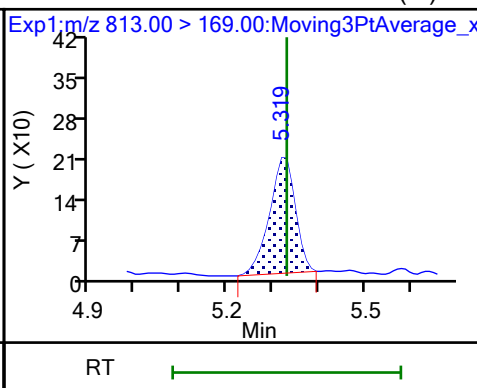
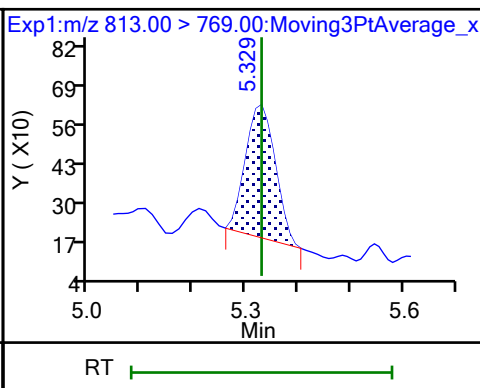
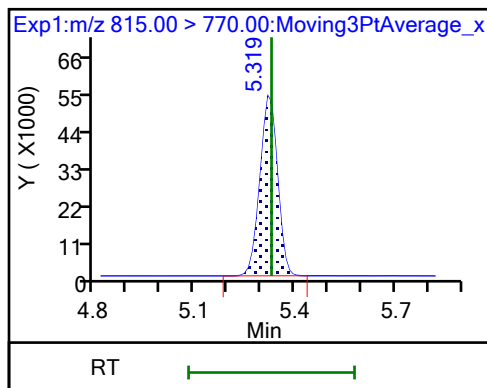
42 Perfluorotetradecanoic acid (M)



D 44 13C2 PFHxDA

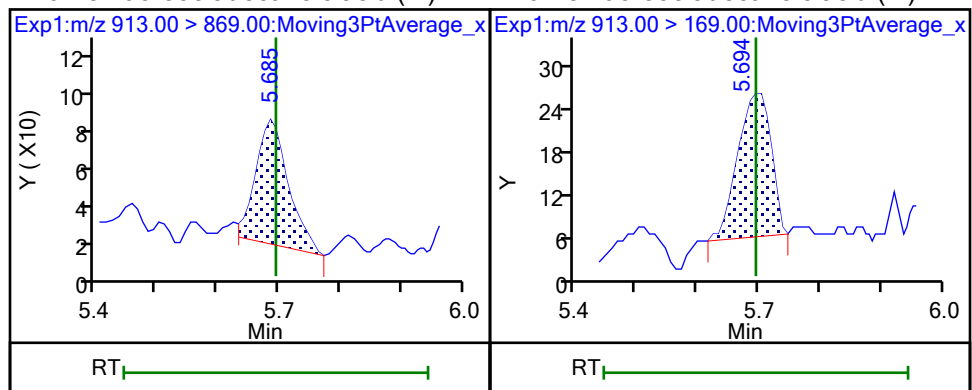
45 Perfluorohexadecanoic acid

45 Perfluorohexadecanoic acid (M)



46 Perfluorooctadecanoic acid (M)

46 Perfluorooctadecanoic acid (M)



Eurofins TestAmerica, Burlington

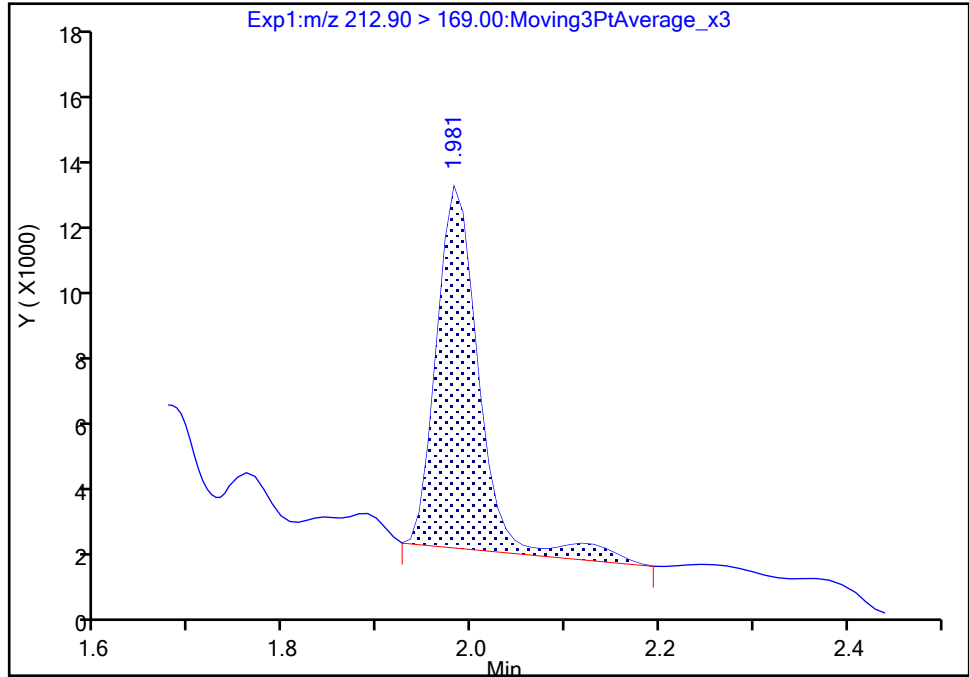
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d		
Injection Date:	27-Oct-2020 19:25:47	Instrument ID:	LC812
Lims ID:	480-176996-C-2-A	Lab Sample ID:	200-176996-2
Client ID:	TPW-33R		
Operator ID:	lc812tech	ALS Bottle#:	15
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL
Column:	C-18 (4.60 mm)	Detector	EXP1
		Worklist Smp#:	18

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

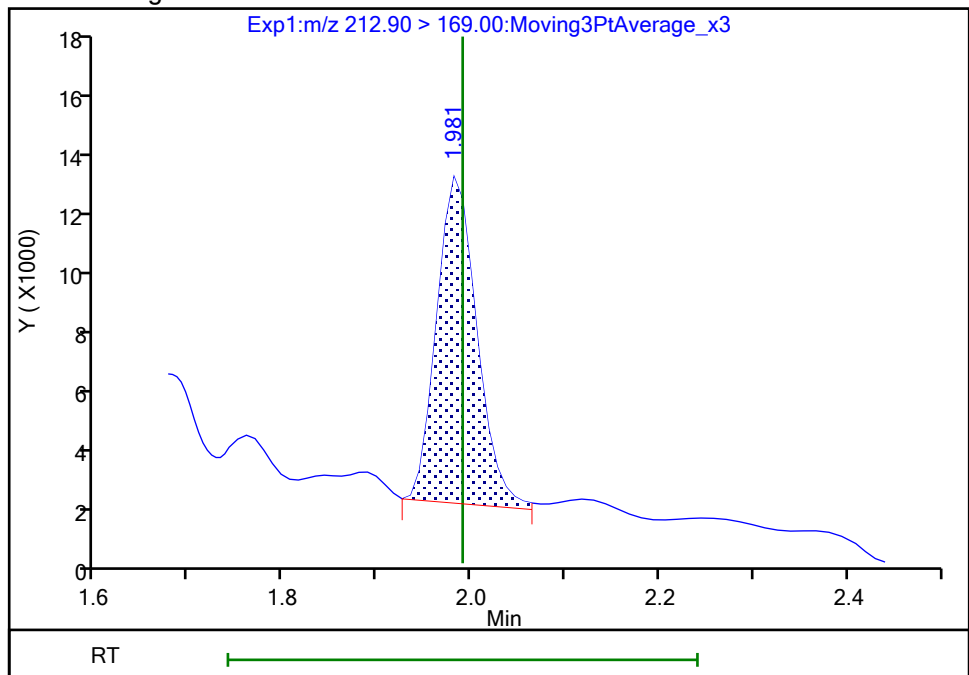
RT: 1.98
Area: 34273
Amount: 0.057387
Amount Units: ng/ml

Processing Integration Results



RT: 1.98
Area: 32036
Amount: 0.053642
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:10:57

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

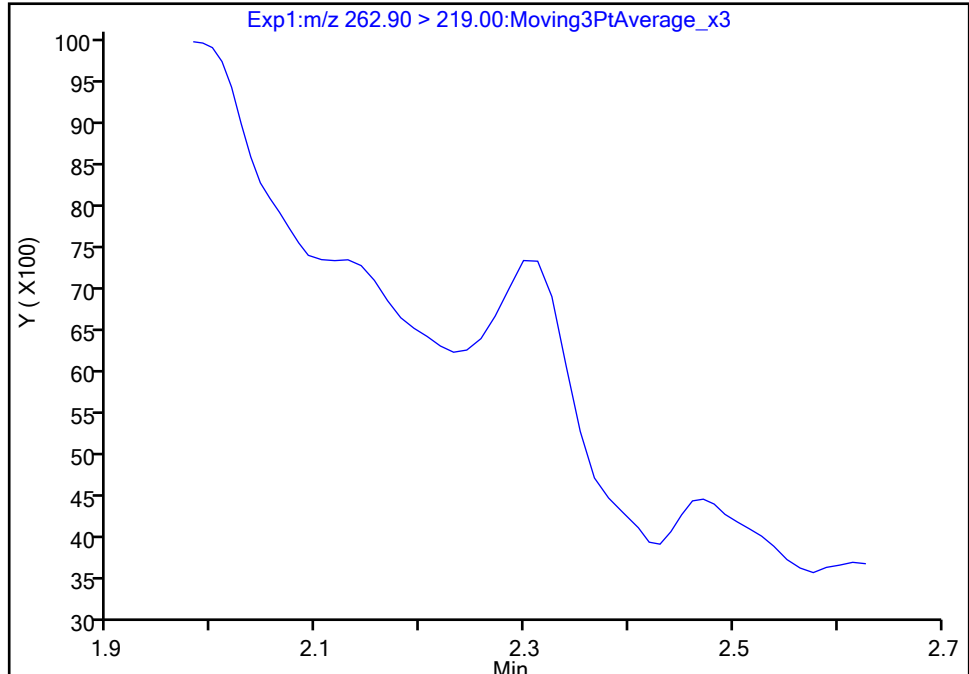
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d		
Injection Date:	27-Oct-2020 19:25:47	Instrument ID:	LC812
Lims ID:	480-176996-C-2-A	Lab Sample ID:	200-176996-2
Client ID:	TPW-33R		
Operator ID:	lc812tech	ALS Bottle#:	15
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL
Column:	C-18 (4.60 mm)	Detector	EXP1
		Worklist Smp#:	18

4 Perfluoropentanoic acid, CAS: 2706-90-3

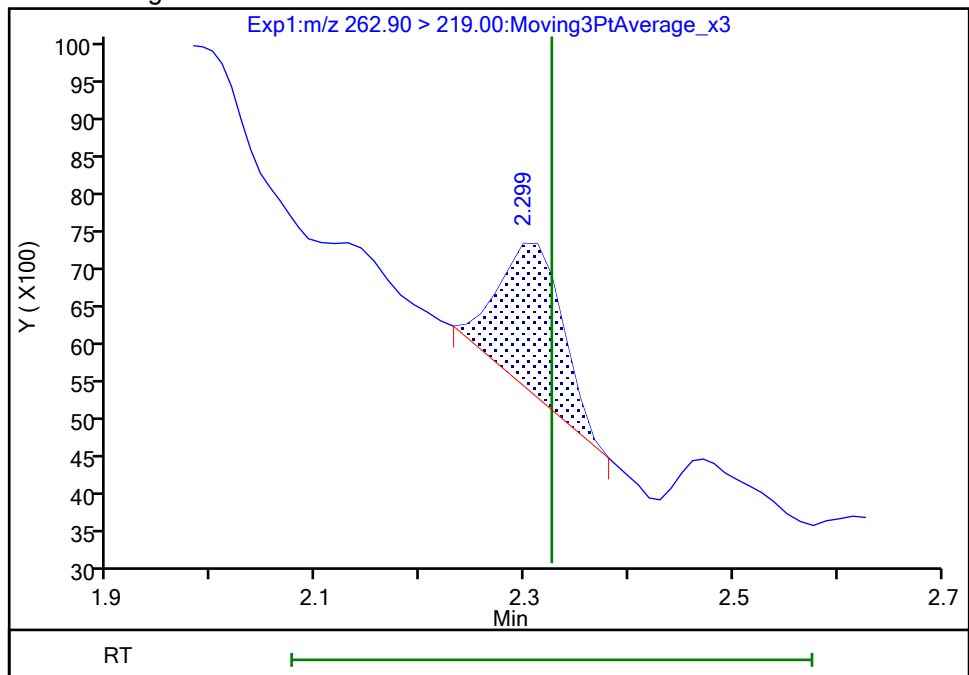
Signal: 1

Not Detected
Expected RT: 2.33

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:11:03

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

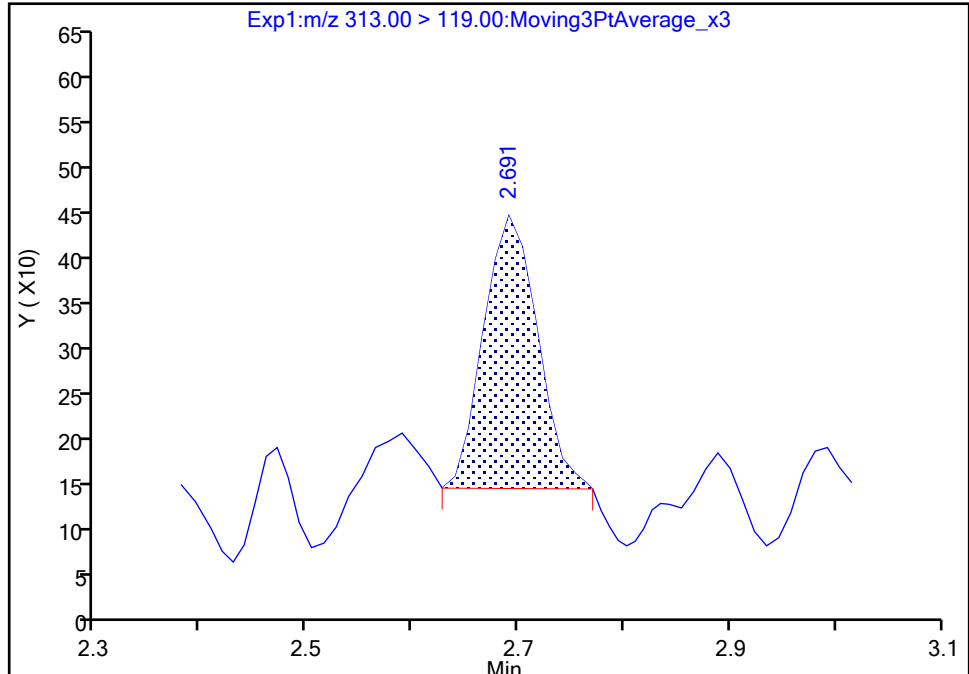
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d		
Injection Date:	27-Oct-2020 19:25:47	Instrument ID:	LC812
Lims ID:	480-176996-C-2-A	Lab Sample ID:	200-176996-2
Client ID:	TPW-33R		
Operator ID:	lc812tech	ALS Bottle#:	15
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL
Column:	C-18 (4.60 mm)	Detector	EXP1
		Worklist Smp#:	18

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

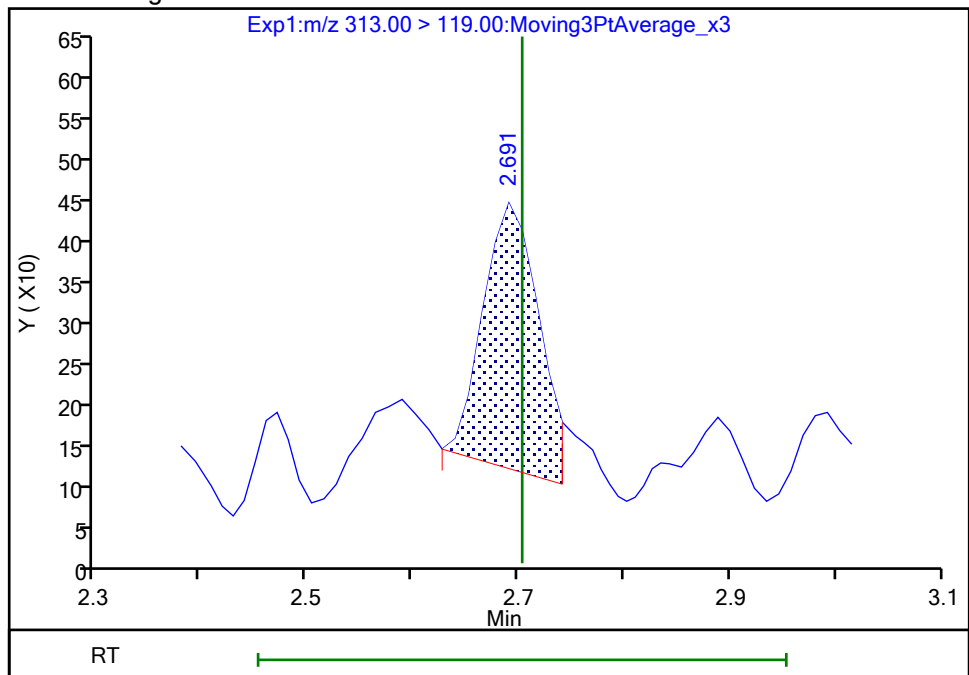
RT: 2.69
Area: 1067
Amount: 0.021933
Amount Units: ng/ml

Processing Integration Results



RT: 2.69
Area: 1184
Amount: 0.021933
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:11:34

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

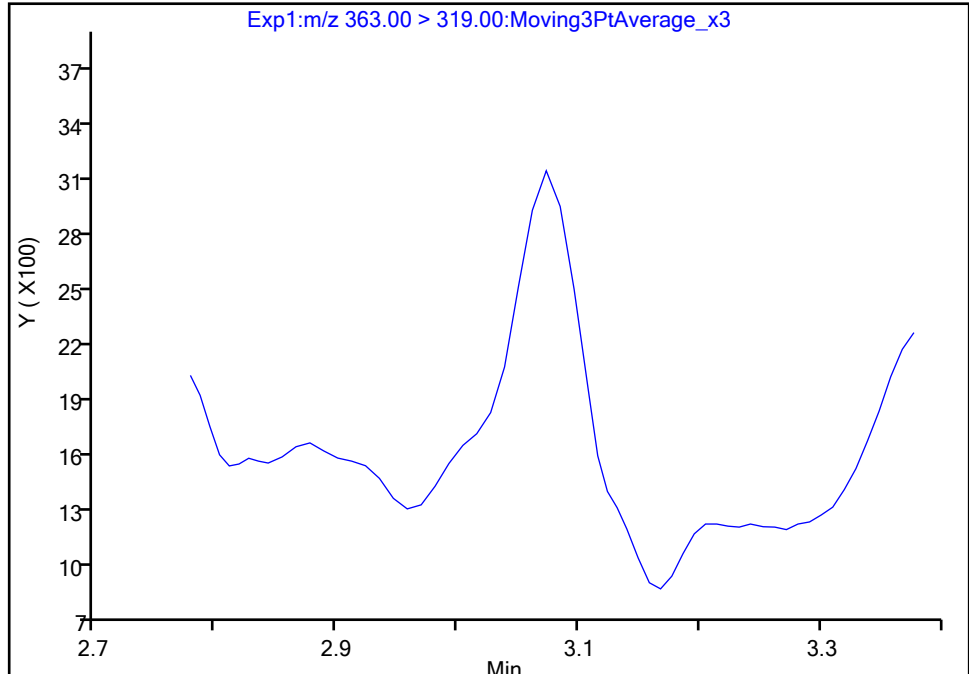
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d				
Injection Date:	27-Oct-2020 19:25:47	Instrument ID:	LC812		
Lims ID:	480-176996-C-2-A	Lab Sample ID:	200-176996-2		
Client ID:	TPW-33R				
Operator ID:	lc812tech	ALS Bottle#:	15	Worklist Smp#:	18
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

10 Perfluoroheptanoic acid, CAS: 375-85-9

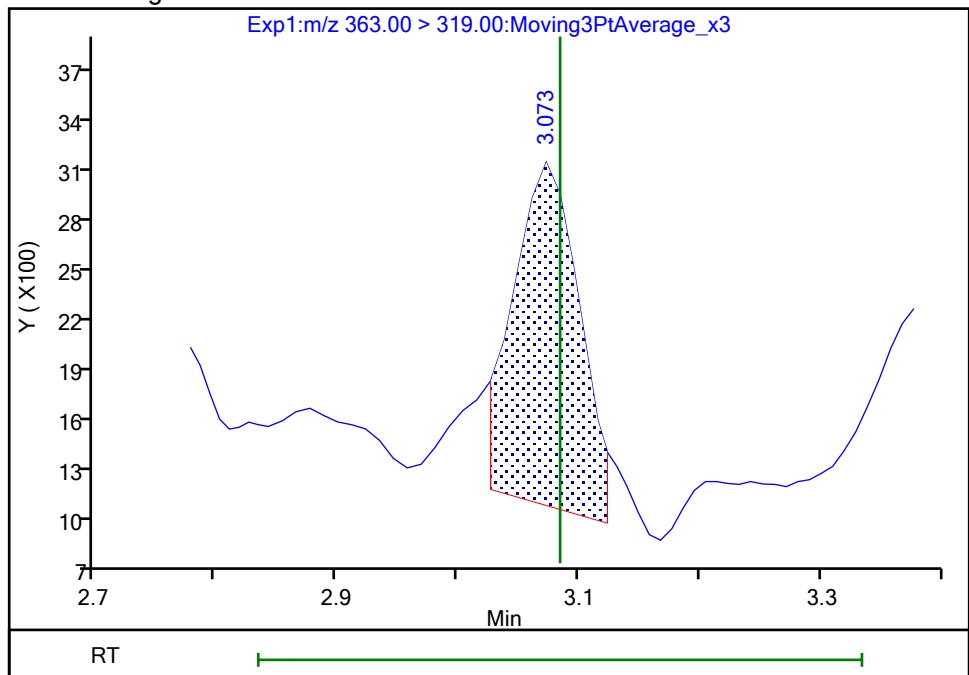
Signal: 1

Not Detected
Expected RT: 3.08

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:12:16

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

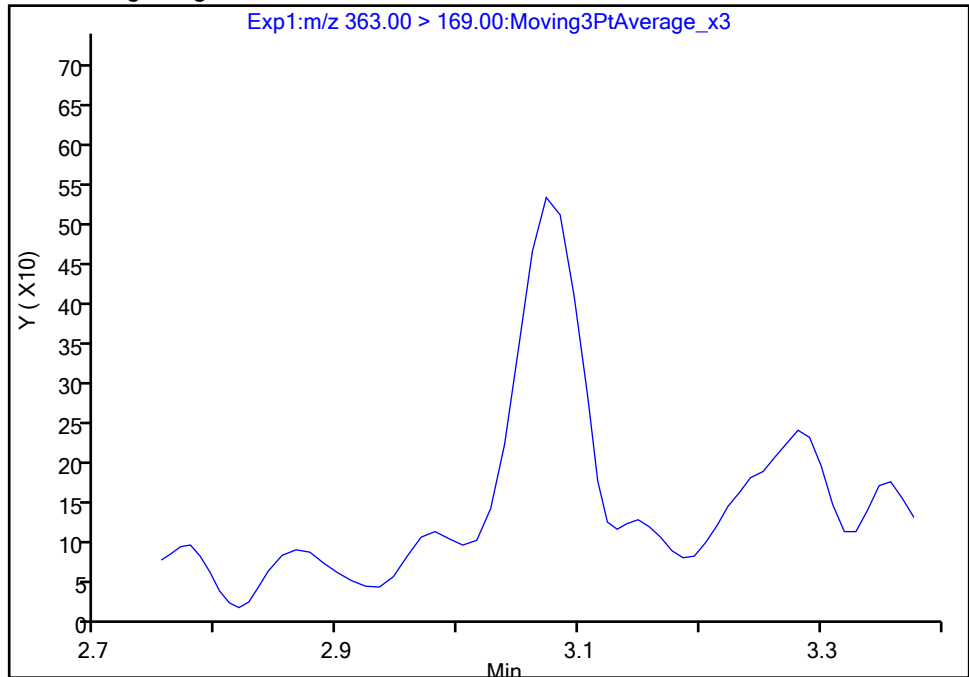
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d
Injection Date: 27-Oct-2020 19:25:47 Instrument ID: LC812
Lims ID: 480-176996-C-2-A Lab Sample ID: 200-176996-2
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

10 Perfluoroheptanoic acid, CAS: 375-85-9

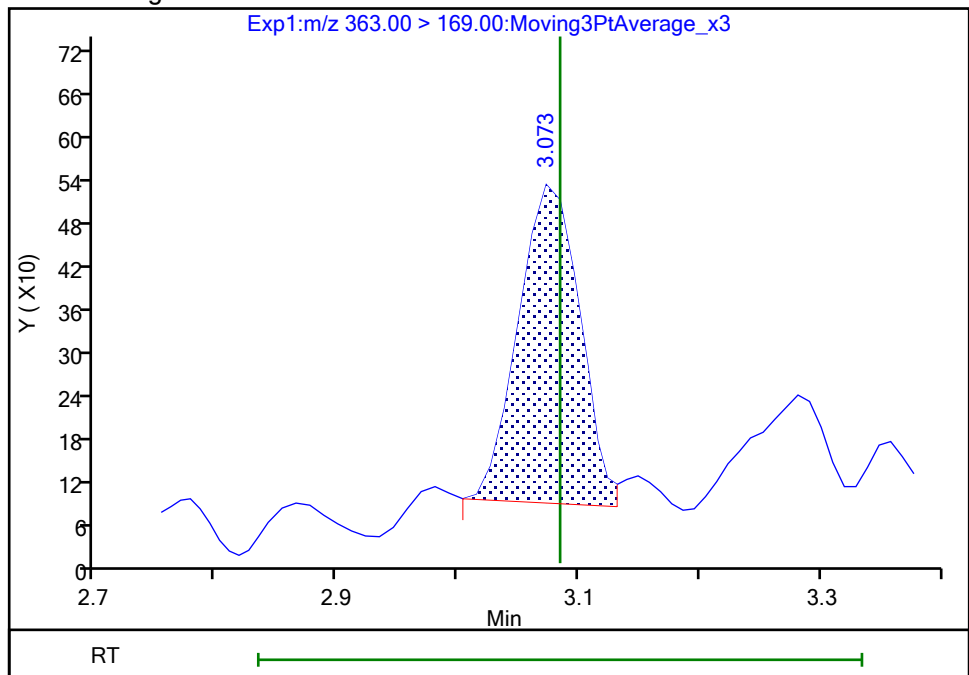
Signal: 2

Not Detected
Expected RT: 3.08

Processing Integration Results



Manual Integration Results



RT: 3.07
Area: 1569
Amount: 0.014723
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:12:22

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 233 of 906

Eurofins TestAmerica, Burlington

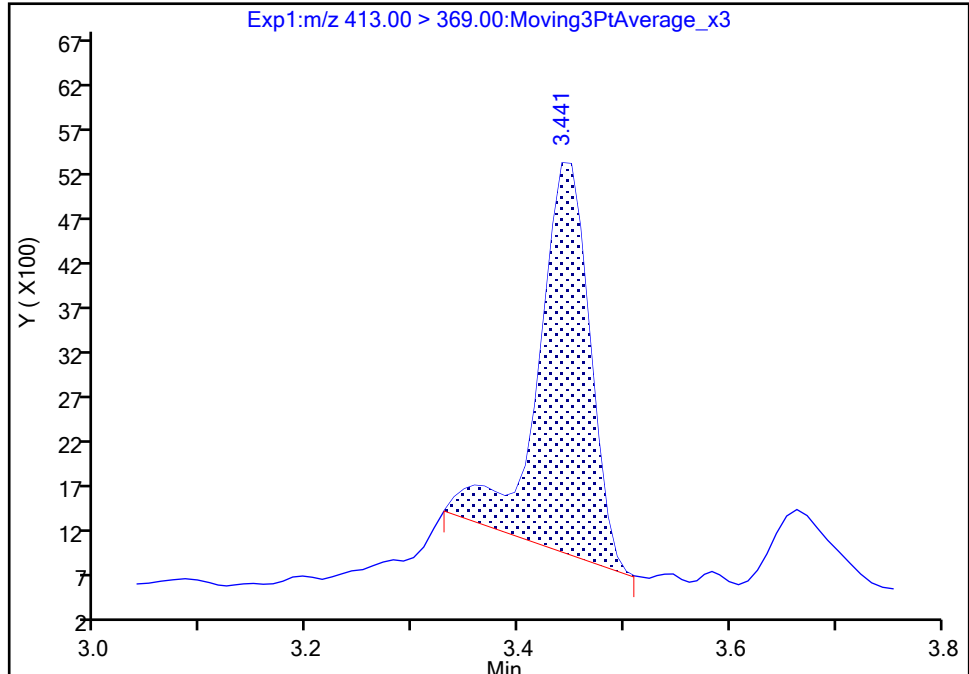
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d				
Injection Date:	27-Oct-2020 19:25:47	Instrument ID:	LC812		
Lims ID:	480-176996-C-2-A	Lab Sample ID:	200-176996-2		
Client ID:	TPW-33R				
Operator ID:	lc812tech	ALS Bottle#:	15	Worklist Smp#:	18
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

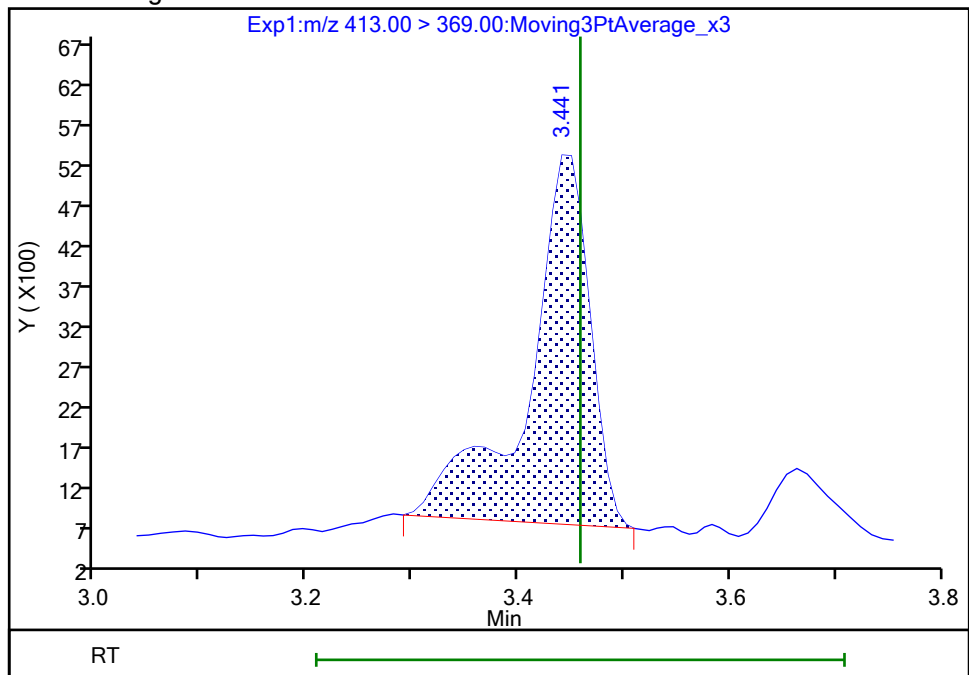
RT: 3.44
Area: 14983
Amount: 0.029621
Amount Units: ng/ml

Processing Integration Results



RT: 3.44
Area: 18608
Amount: 0.036787
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:13:15

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

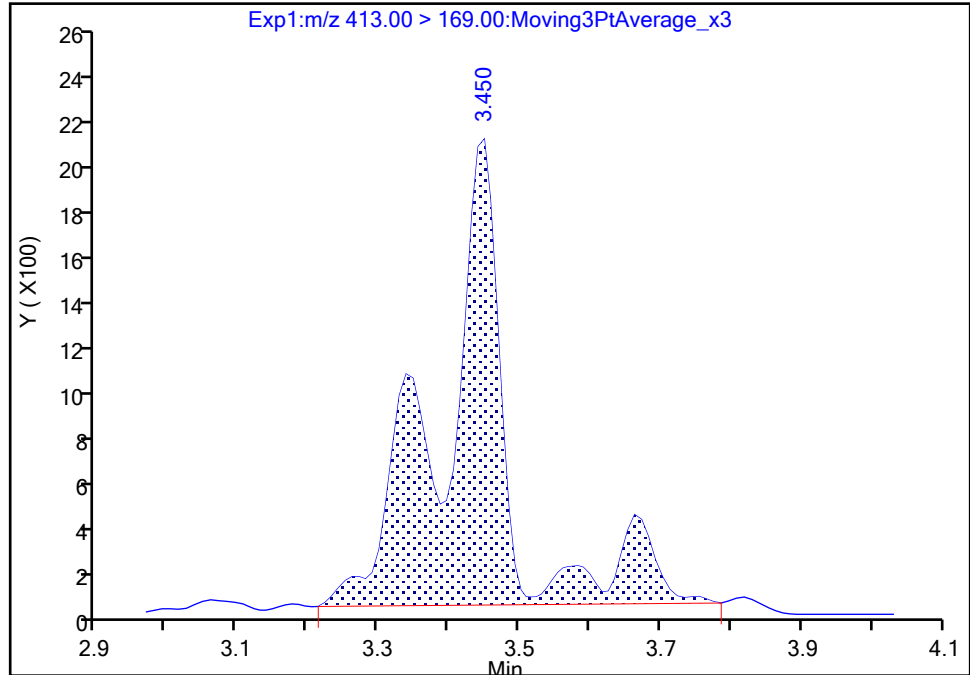
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d
Injection Date: 27-Oct-2020 19:25:47 Instrument ID: LC812
Lims ID: 480-176996-C-2-A Lab Sample ID: 200-176996-2
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

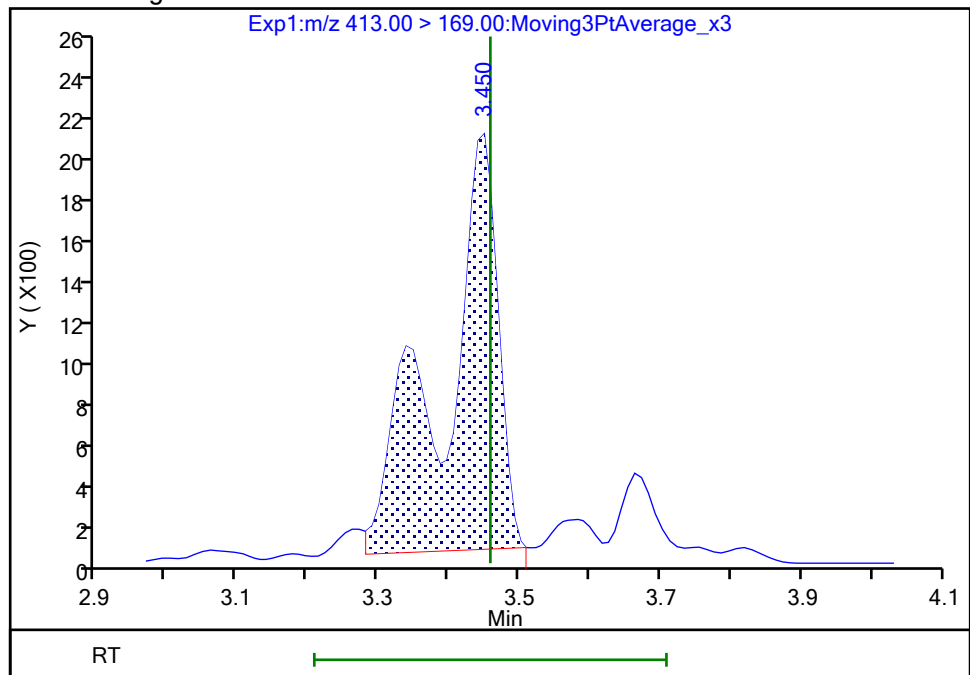
RT: 3.45
Area: 13417
Amount: 0.029621
Amount Units: ng/ml

Processing Integration Results



RT: 3.45
Area: 10802
Amount: 0.036787
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:13:24

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

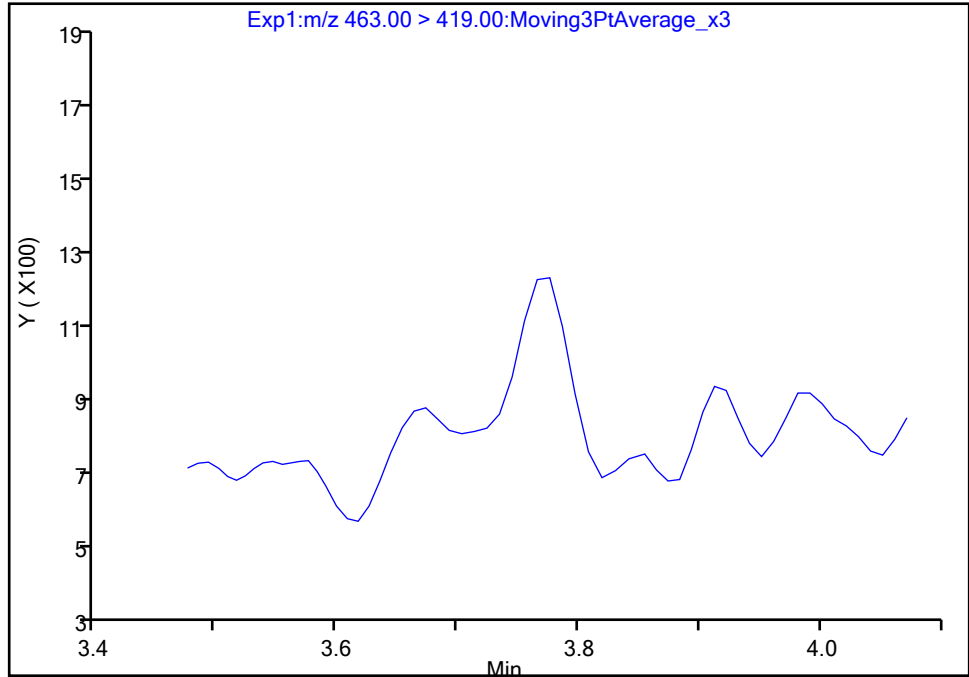
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d				
Injection Date:	27-Oct-2020 19:25:47	Instrument ID:	LC812		
Lims ID:	480-176996-C-2-A	Lab Sample ID:	200-176996-2		
Client ID:	TPW-33R				
Operator ID:	lc812tech	ALS Bottle#:	15	Worklist Smp#:	18
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

20 Perfluorononanoic acid, CAS: 375-95-1

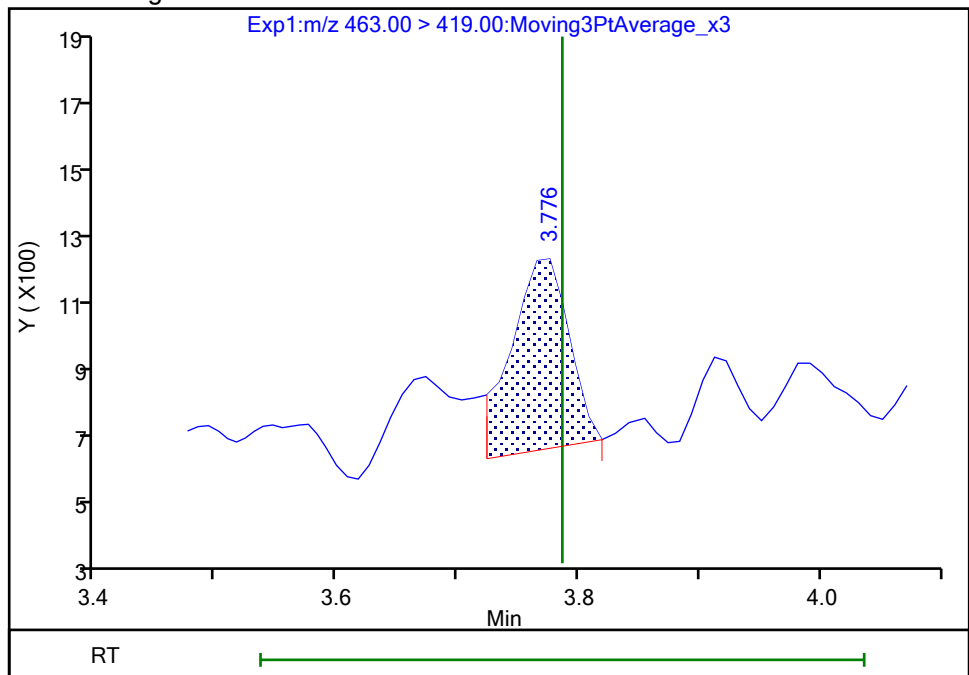
Signal: 1

Not Detected
Expected RT: 3.79

Processing Integration Results



Manual Integration Results

RT: 3.78
Area: 1872
Amount: 0.004495
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:13:58

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

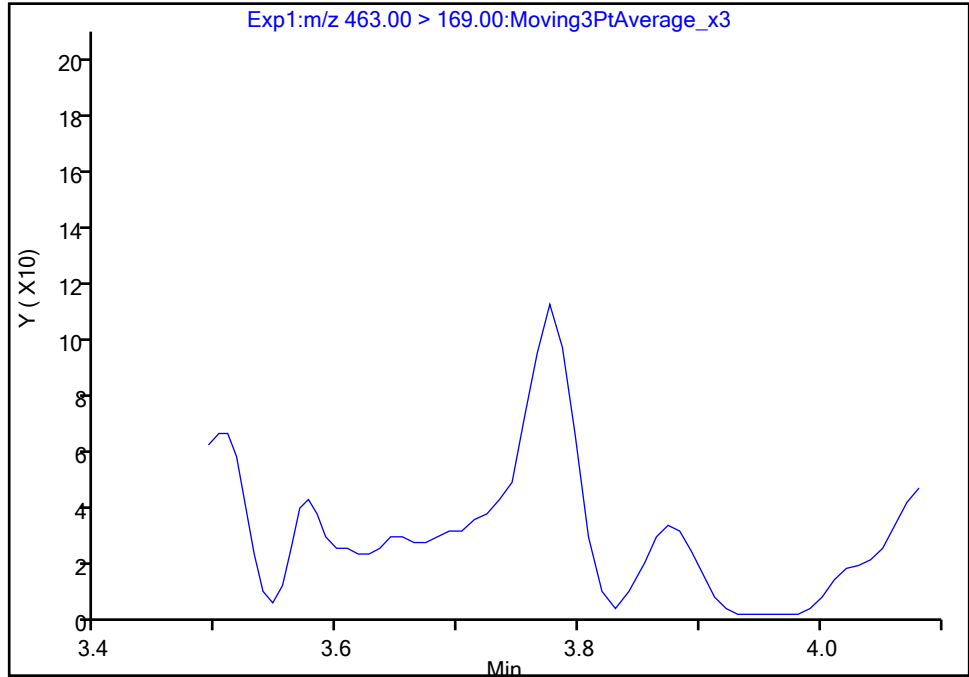
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d
Injection Date: 27-Oct-2020 19:25:47 Instrument ID: LC812
Lims ID: 480-176996-C-2-A Lab Sample ID: 200-176996-2
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

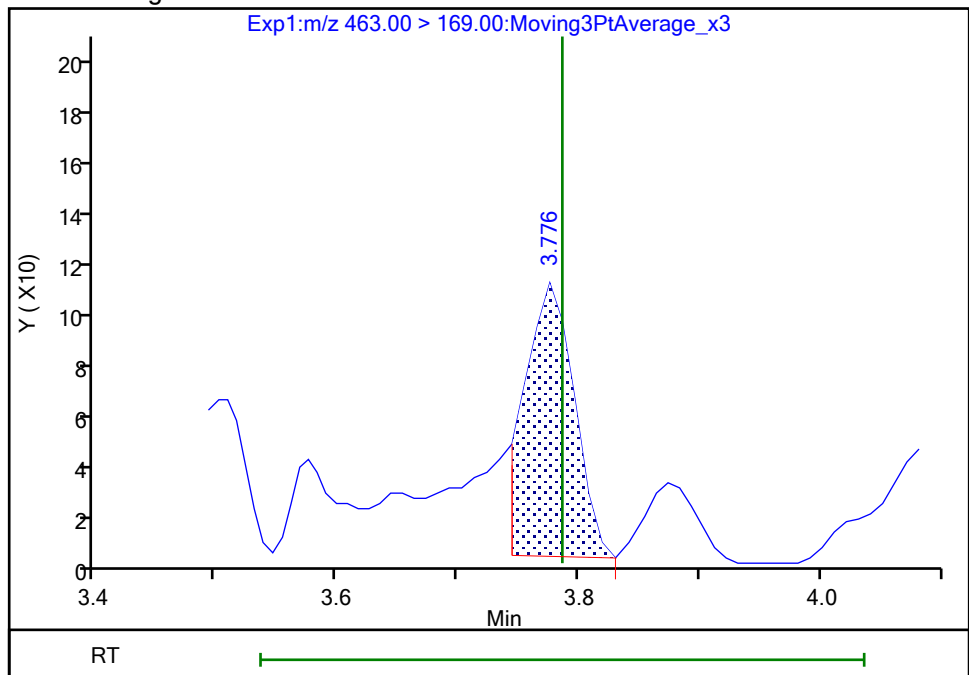
Not Detected
Expected RT: 3.79

Processing Integration Results



Manual Integration Results

RT: 3.78
Area: 292
Amount: 0.004495
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 09:14:10

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 237 of 906

Eurofins TestAmerica, Burlington

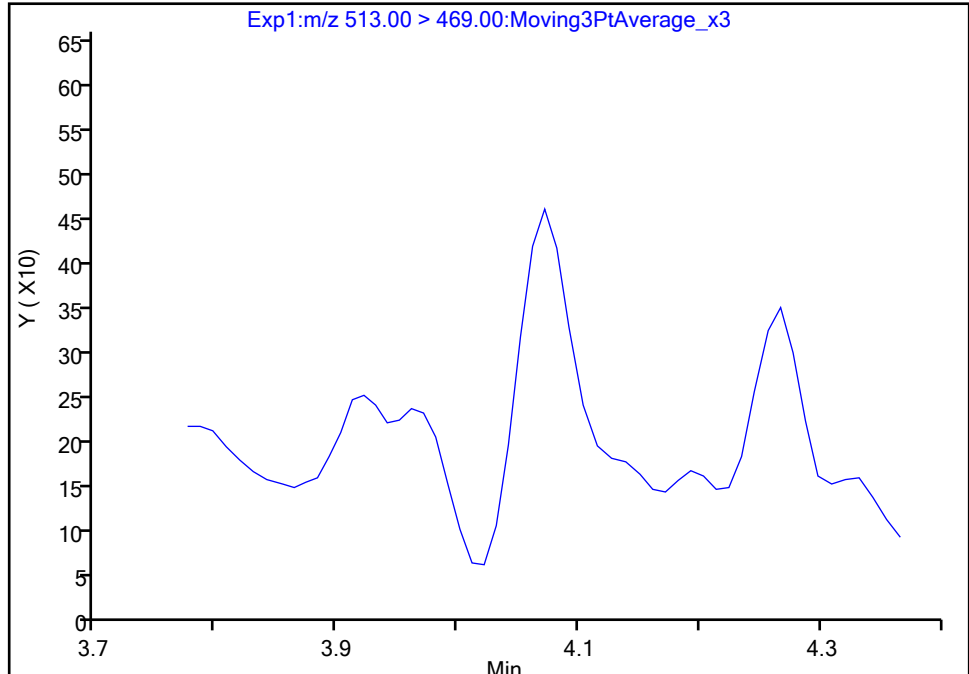
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d		
Injection Date:	27-Oct-2020 19:25:47	Instrument ID:	LC812
Lims ID:	480-176996-C-2-A	Lab Sample ID:	200-176996-2
Client ID:	TPW-33R		
Operator ID:	lc812tech	ALS Bottle#:	15
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL
Column:	C-18 (4.60 mm)	Detector:	EXP1
		Worklist Smp#:	18

24 Perfluorodecanoic acid, CAS: 335-76-2

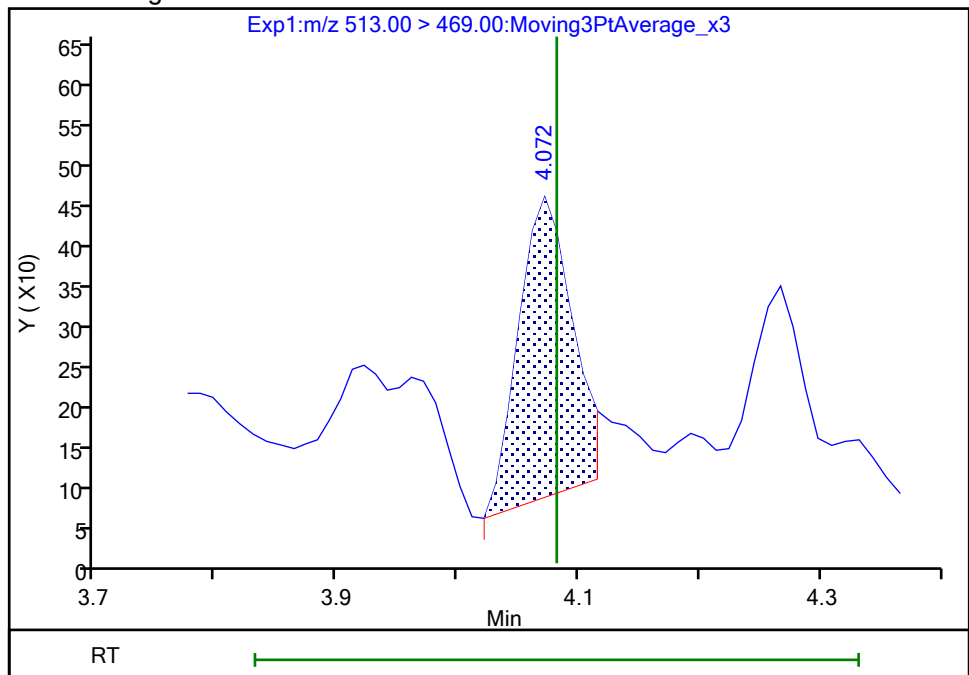
Signal: 1

Not Detected
Expected RT: 4.08

Processing Integration Results



Manual Integration Results

RT: 4.07
Area: 1146
Amount: 0.003266
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:14:54

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

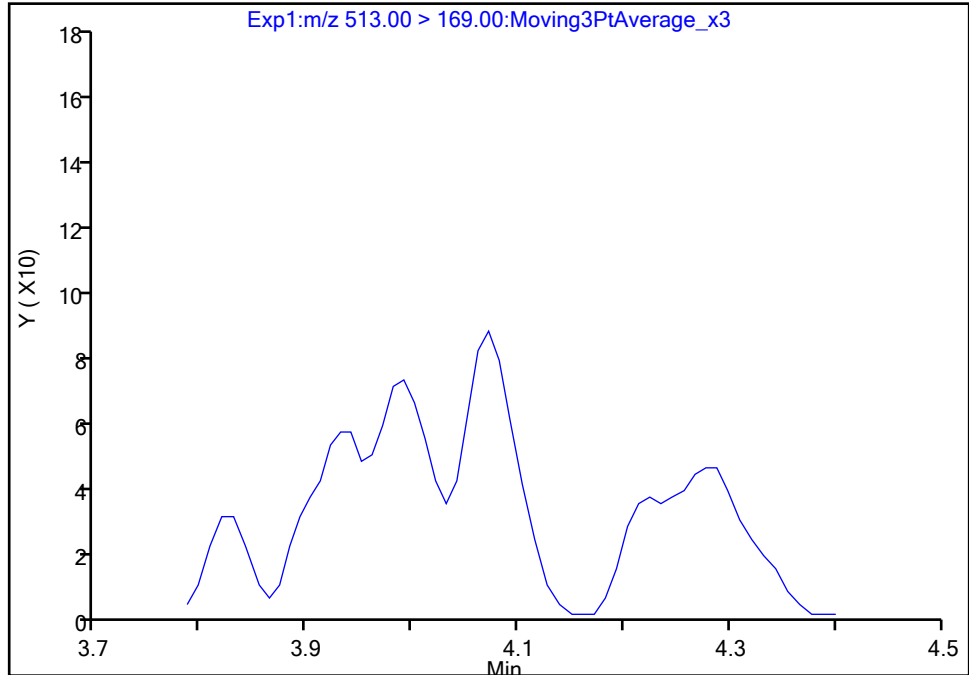
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d
Injection Date: 27-Oct-2020 19:25:47 Instrument ID: LC812
Lims ID: 480-176996-C-2-A Lab Sample ID: 200-176996-2
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

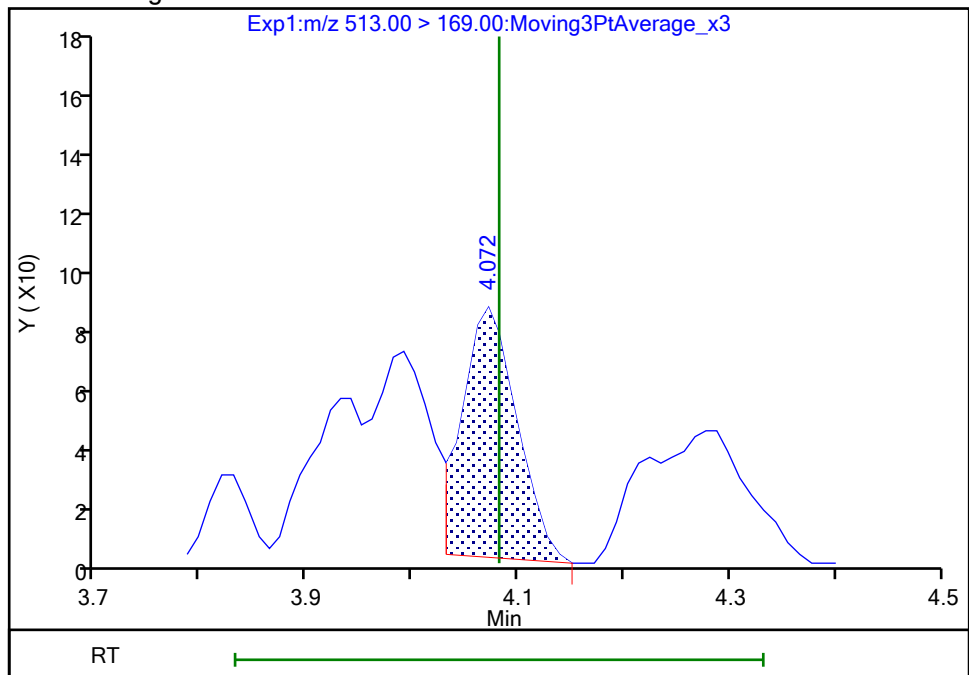
Not Detected
Expected RT: 4.08

Processing Integration Results



Manual Integration Results

RT: 4.07
Area: 301
Amount: 0.003266
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 09:15:07

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

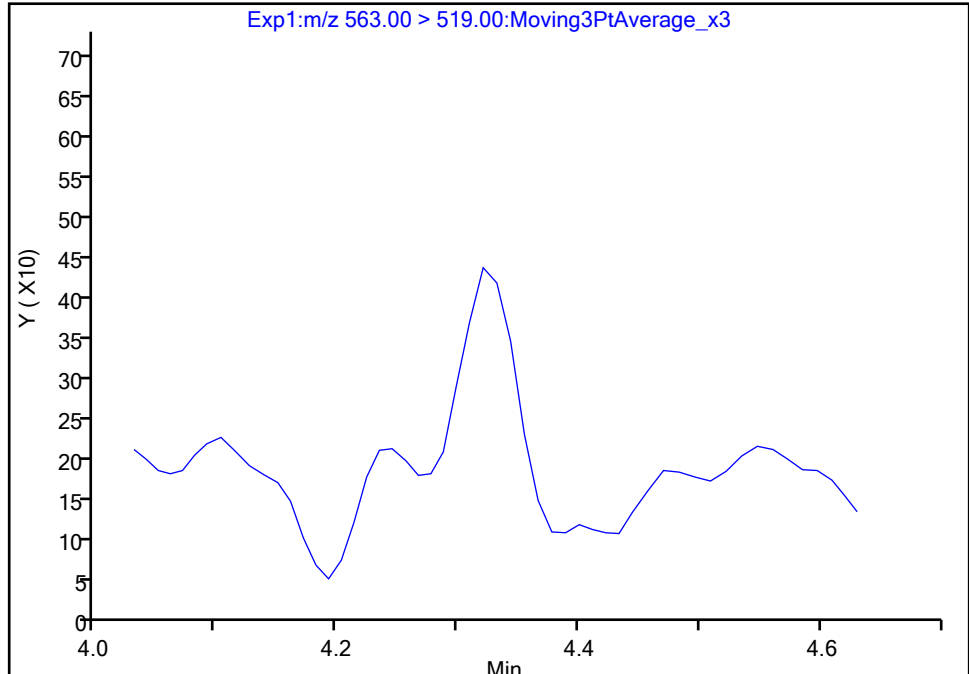
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d				
Injection Date:	27-Oct-2020 19:25:47	Instrument ID:	LC812		
Lims ID:	480-176996-C-2-A	Lab Sample ID:	200-176996-2		
Client ID:	TPW-33R				
Operator ID:	lc812tech	ALS Bottle#:	15	Worklist Smp#:	18
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

31 Perfluoroundecanoic acid, CAS: 2058-94-8

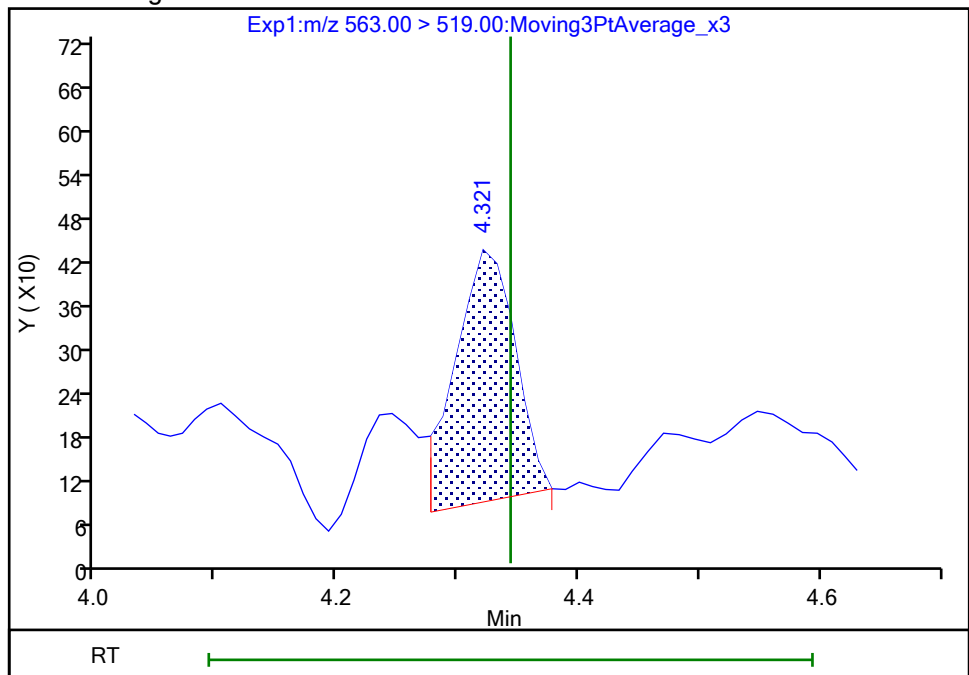
Signal: 1

Not Detected
Expected RT: 4.34

Processing Integration Results



Manual Integration Results



RT: 4.32
Area: 1174
Amount: 0.004554
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:16:04

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

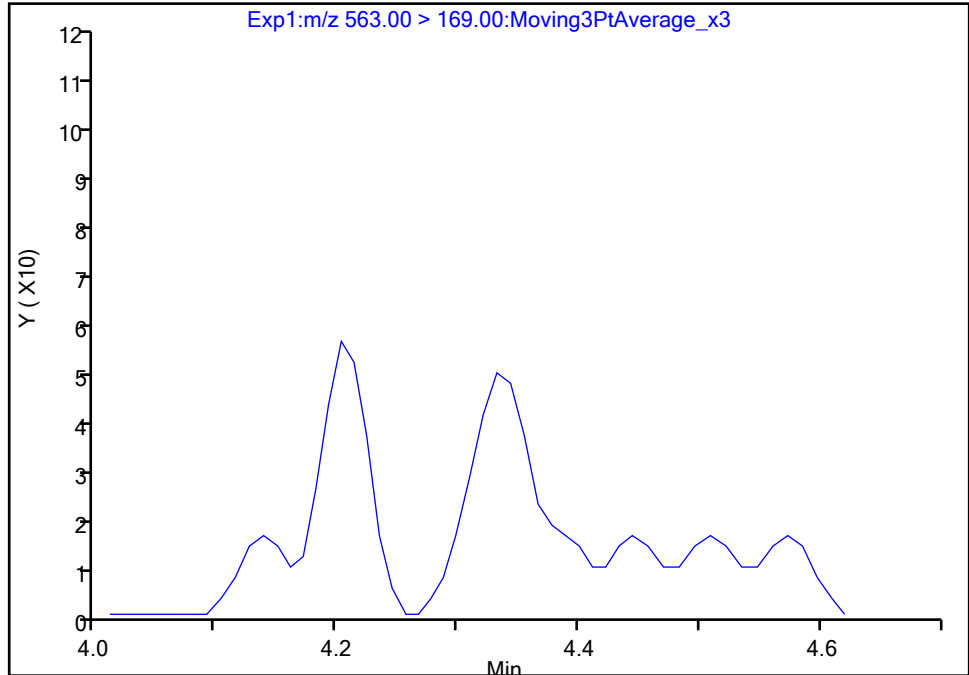
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d
Injection Date: 27-Oct-2020 19:25:47 Instrument ID: LC812
Lims ID: 480-176996-C-2-A Lab Sample ID: 200-176996-2
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

31 Perfluoroundecanoic acid, CAS: 2058-94-8

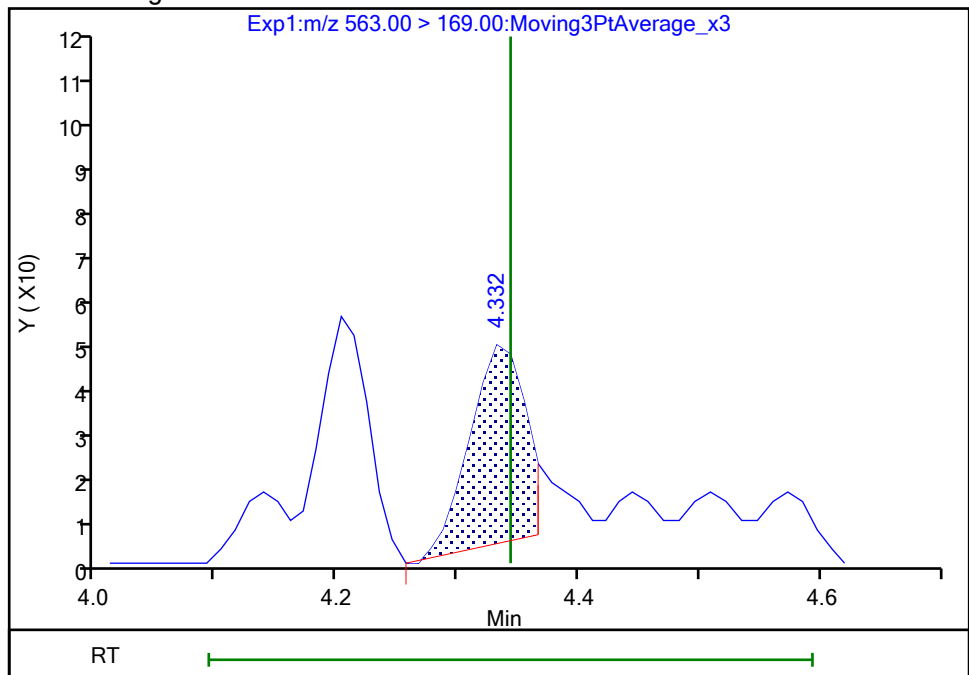
Signal: 2

Not Detected
Expected RT: 4.34

Processing Integration Results



Manual Integration Results



RT: 4.33
Area: 131
Amount: 0.004554
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:16:11

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

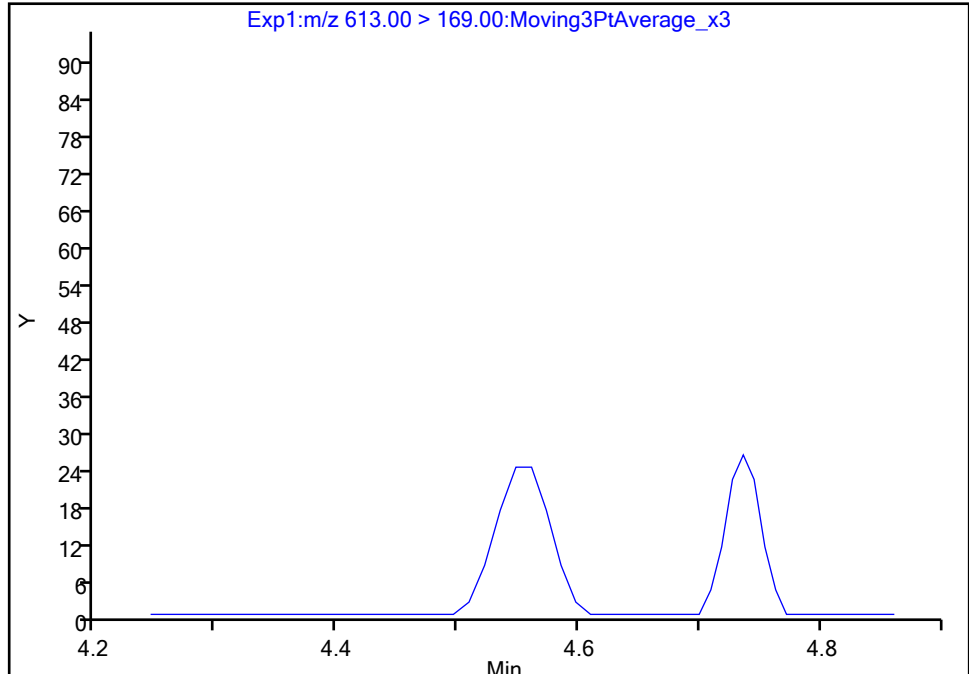
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d		
Injection Date:	27-Oct-2020 19:25:47	Instrument ID:	LC812
Lims ID:	480-176996-C-2-A	Lab Sample ID:	200-176996-2
Client ID:	TPW-33R		
Operator ID:	lc812tech	ALS Bottle#:	15
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL
Column:	C-18 (4.60 mm)	Detector	EXP1
		Worklist Smp#:	18

37 Perfluorododecanoic acid, CAS: 307-55-1

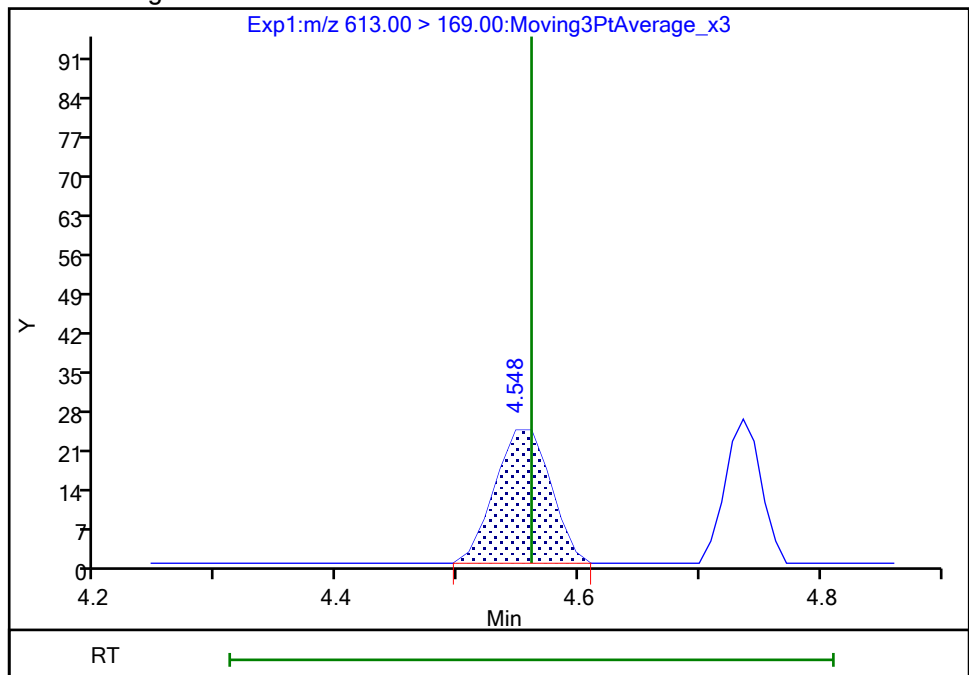
Signal: 2

Not Detected
Expected RT: 4.56

Processing Integration Results



Manual Integration Results



RT: 4.55
Area: 77
Amount: 0.003808
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:16:41

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

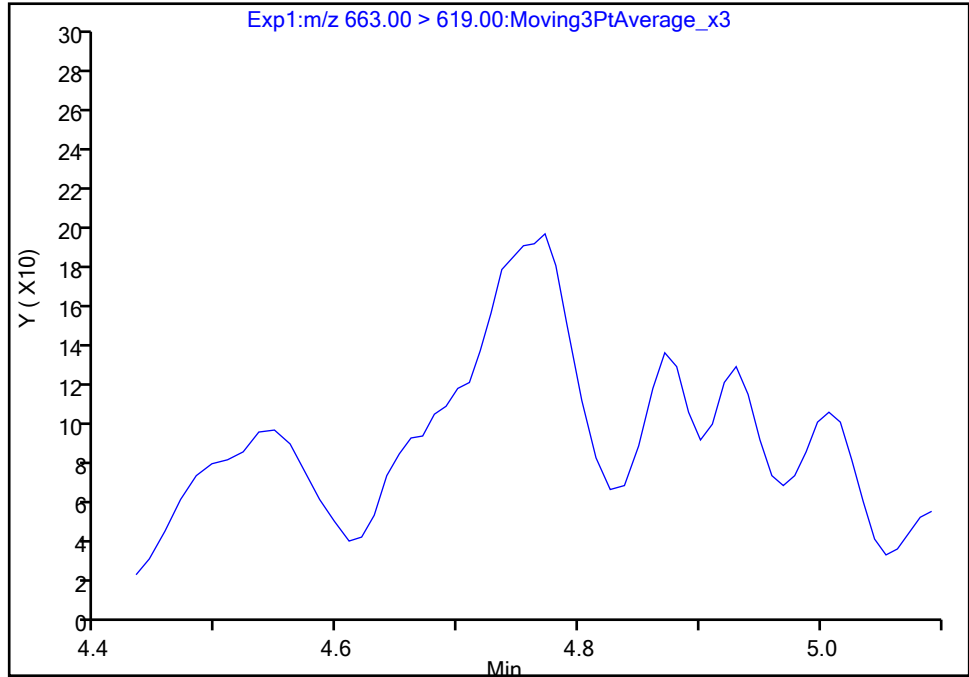
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d				
Injection Date:	27-Oct-2020 19:25:47	Instrument ID:	LC812		
Lims ID:	480-176996-C-2-A	Lab Sample ID:	200-176996-2		
Client ID:	TPW-33R				
Operator ID:	lc812tech	ALS Bottle#:	15	Worklist Smp#:	18
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

41 Perfluorotridecanoic acid, CAS: 72629-94-8

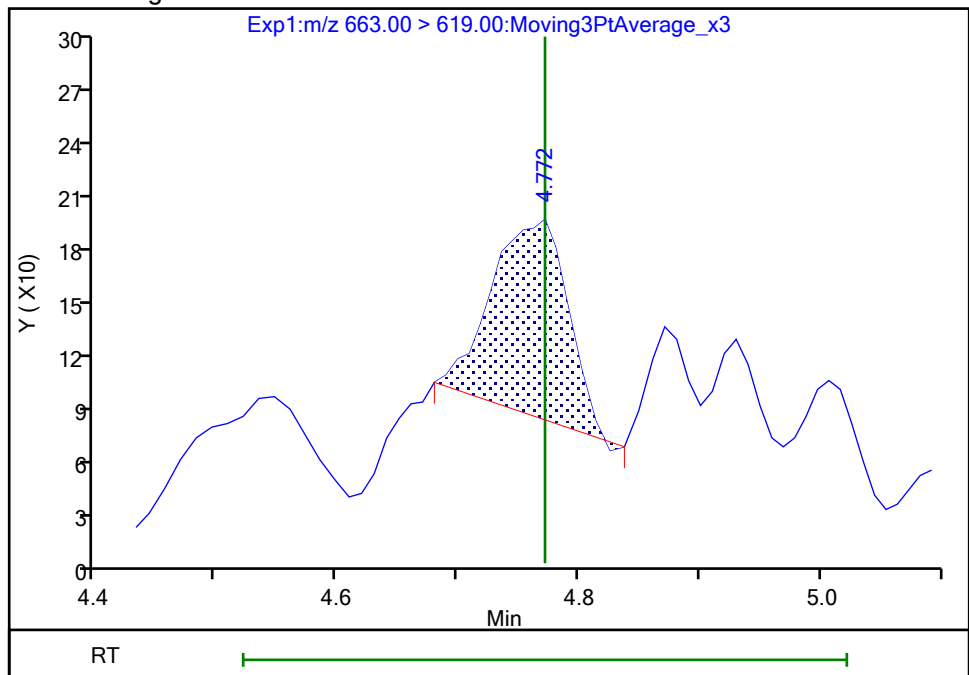
Signal: 1

Not Detected
Expected RT: 4.77

Processing Integration Results



Manual Integration Results



RT: 4.77
Area: 475
Amount: 0.002468
Amount Units: ng/ml

Reviewer: chirgwinb, 28-Oct-2020 12:46:30

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

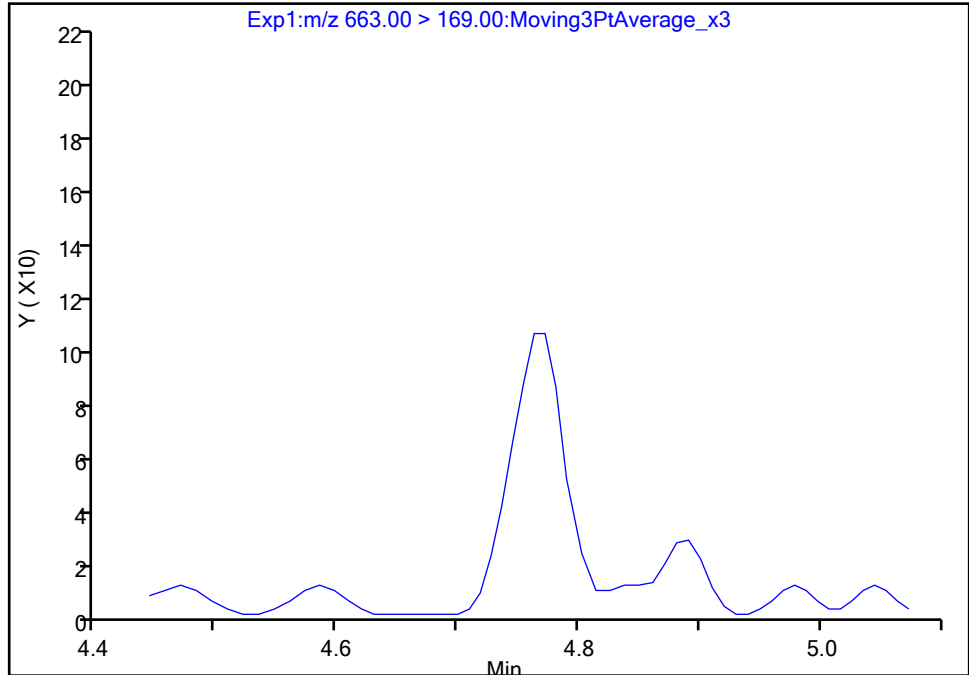
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d
Injection Date: 27-Oct-2020 19:25:47 Instrument ID: LC812
Lims ID: 480-176996-C-2-A Lab Sample ID: 200-176996-2
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

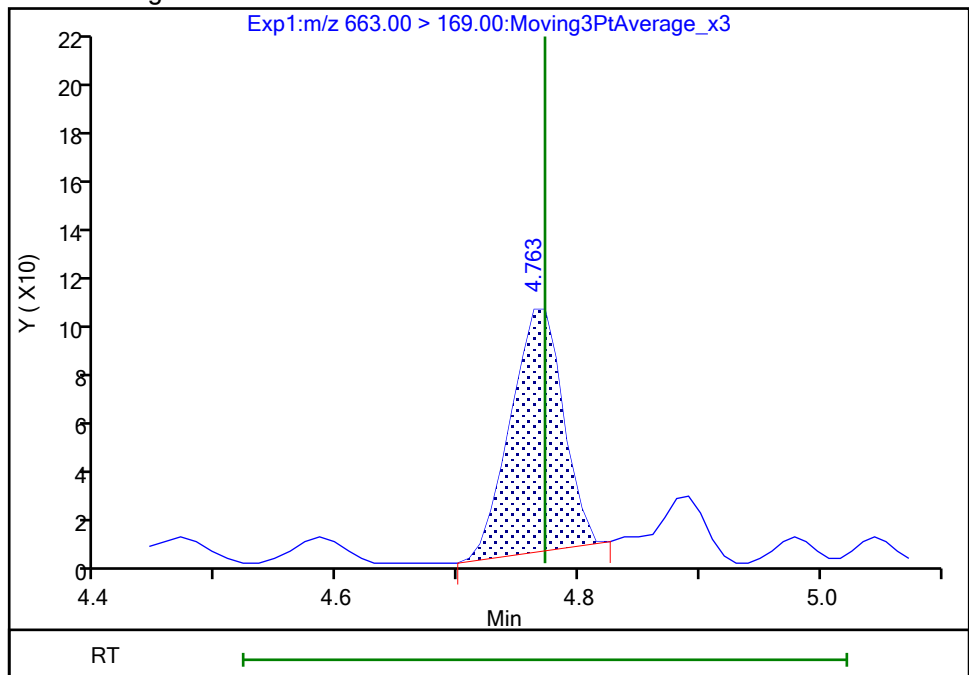
Not Detected
Expected RT: 4.77

Processing Integration Results



RT: 4.76
Area: 305
Amount: 0.002468
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 12:46:34

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

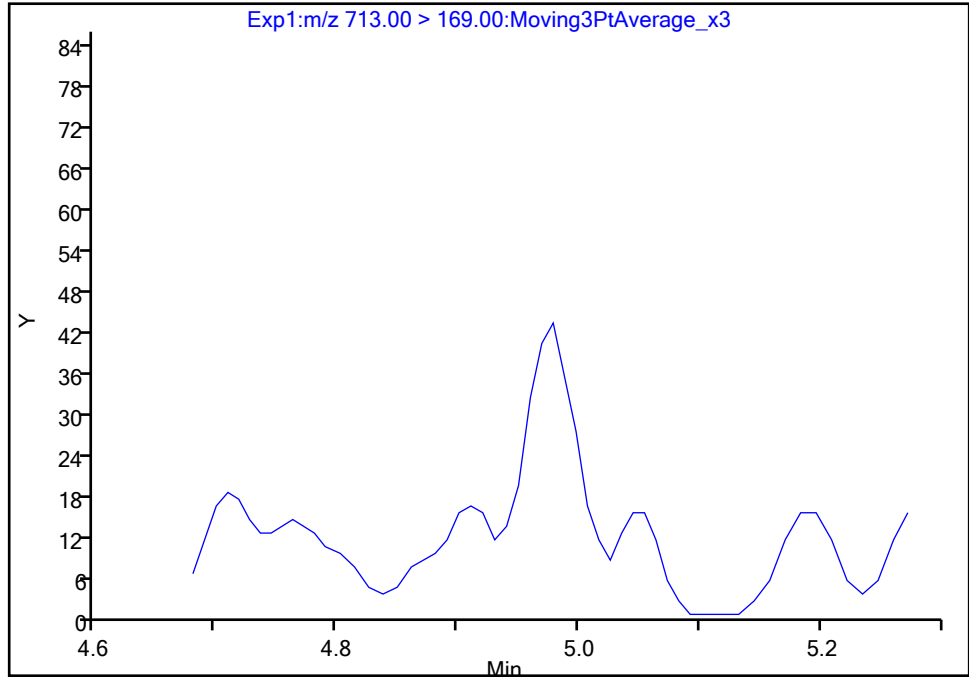
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d
Injection Date: 27-Oct-2020 19:25:47 Instrument ID: LC812
Lims ID: 480-176996-C-2-A Lab Sample ID: 200-176996-2
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

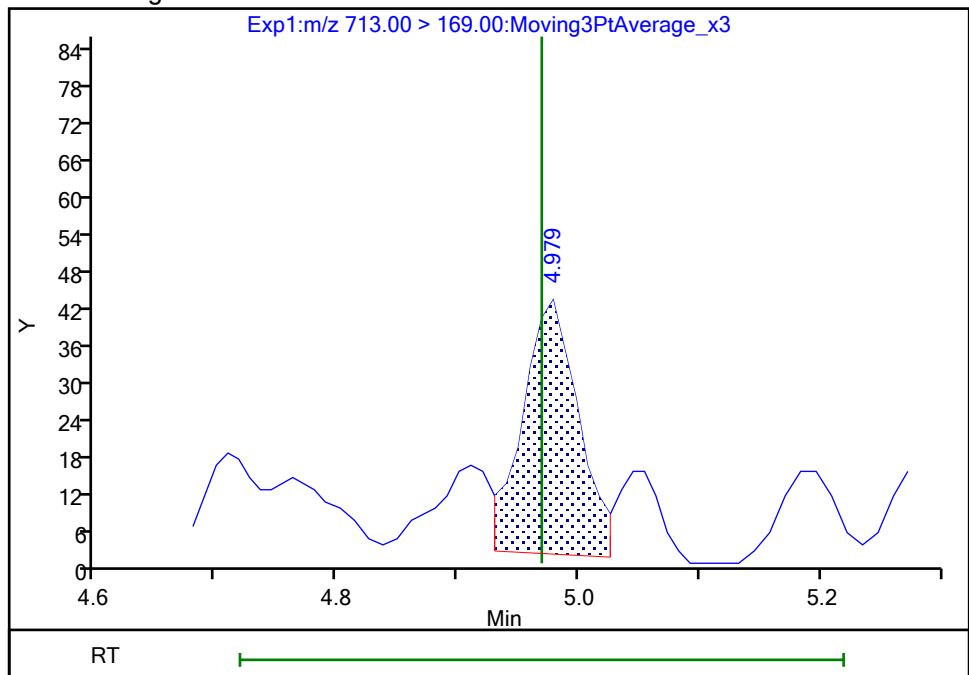
Signal: 1

Not Detected
Expected RT: 4.97

Processing Integration Results



Manual Integration Results



RT: 4.98
Area: 131
Amount: 0.003376
Amount Units: ng/ml

Reviewer: chirgwinb, 28-Oct-2020 12:46:57

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

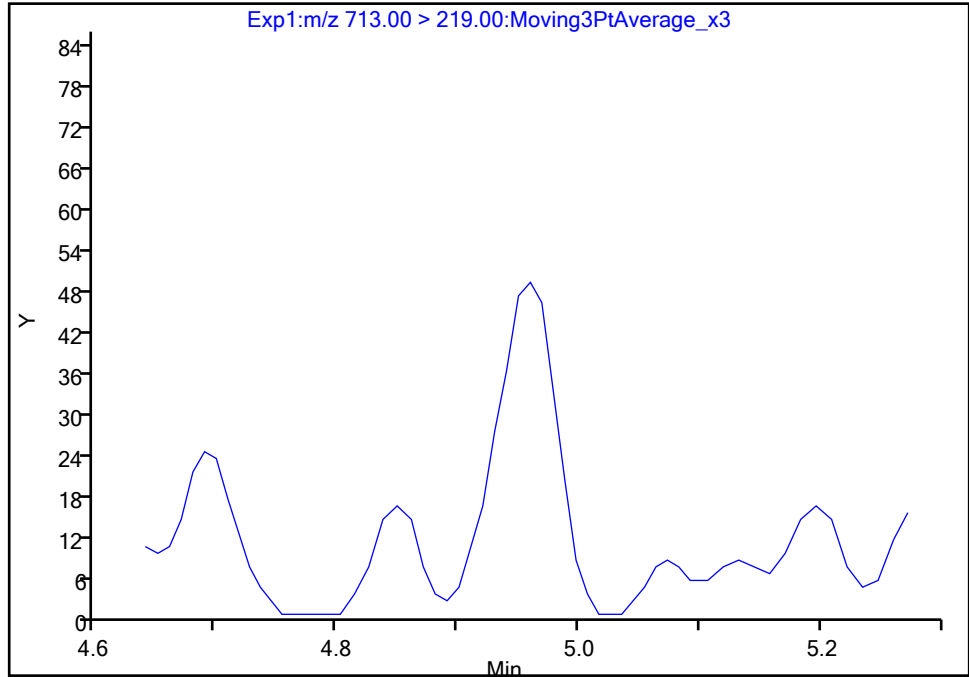
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d
Injection Date: 27-Oct-2020 19:25:47 Instrument ID: LC812
Lims ID: 480-176996-C-2-A Lab Sample ID: 200-176996-2
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

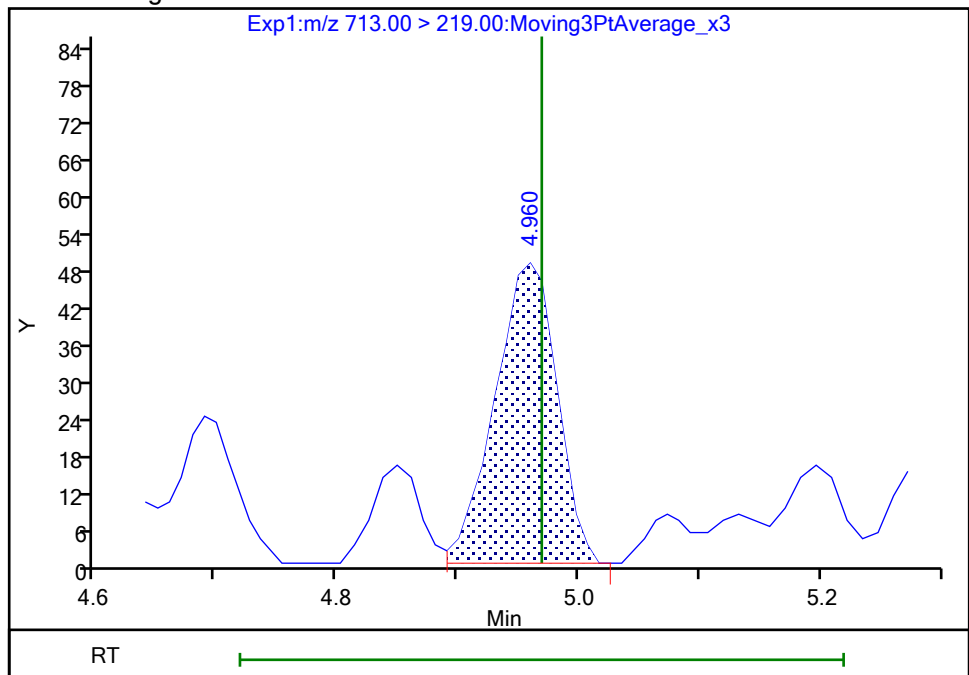
Signal: 2

Not Detected
Expected RT: 4.97

Processing Integration Results



Manual Integration Results



RT: 4.96
Area: 174
Amount: 0.003376
Amount Units: ng/ml

Eurofins TestAmerica, Burlington

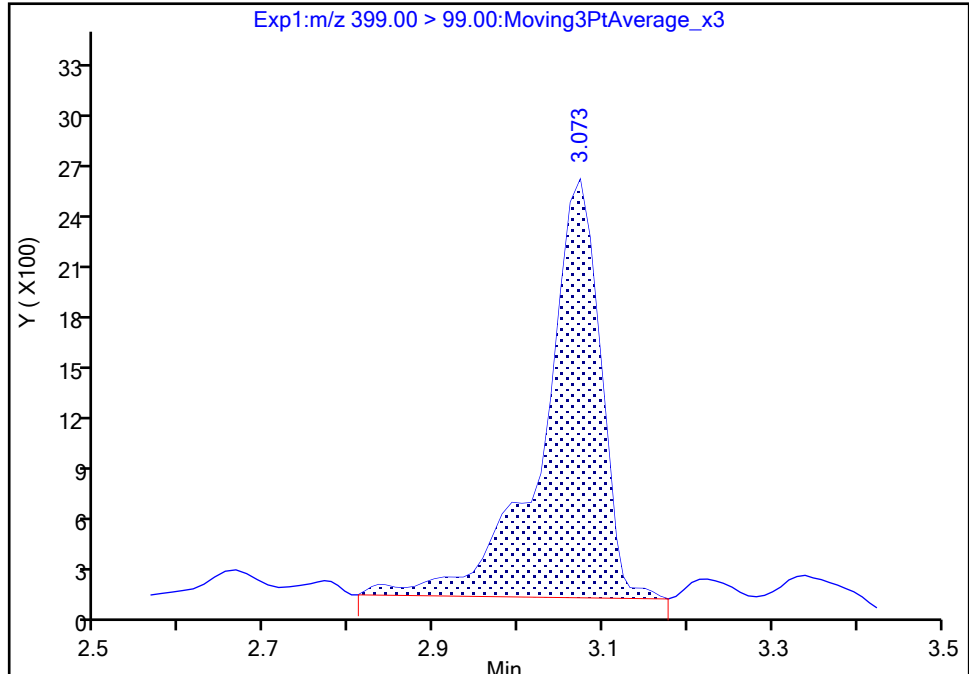
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d				
Injection Date:	27-Oct-2020 19:25:47	Instrument ID:	LC812		
Lims ID:	480-176996-C-2-A	Lab Sample ID:	200-176996-2		
Client ID:	TPW-33R				
Operator ID:	lc812tech	ALS Bottle#:	15	Worklist Smp#:	18
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

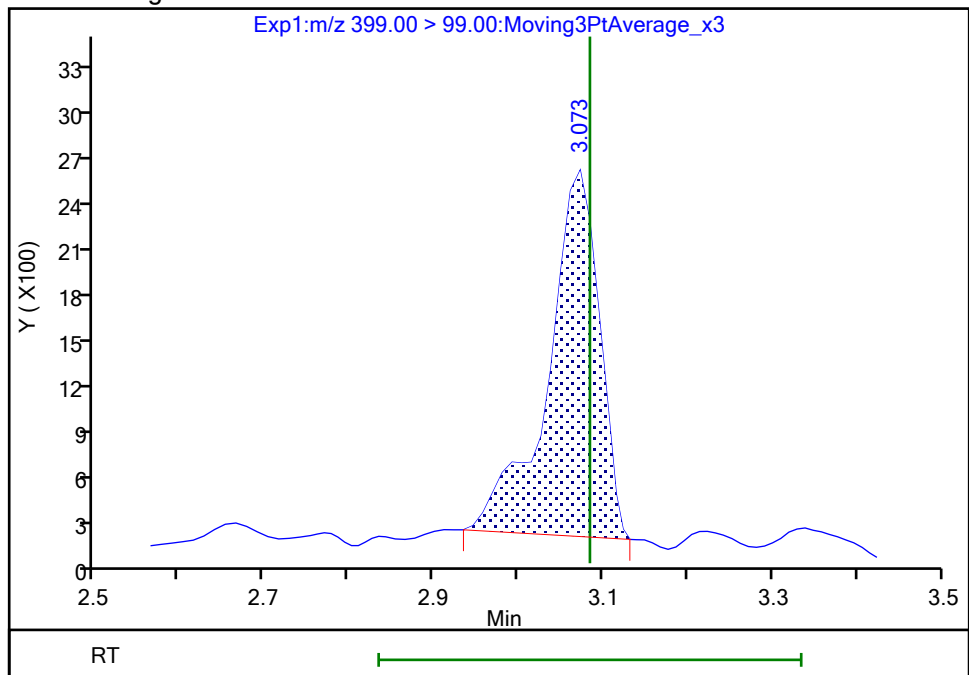
RT: 3.07
Area: 11643
Amount: 0.110826
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 10016
Amount: 0.110826
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:12:01

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

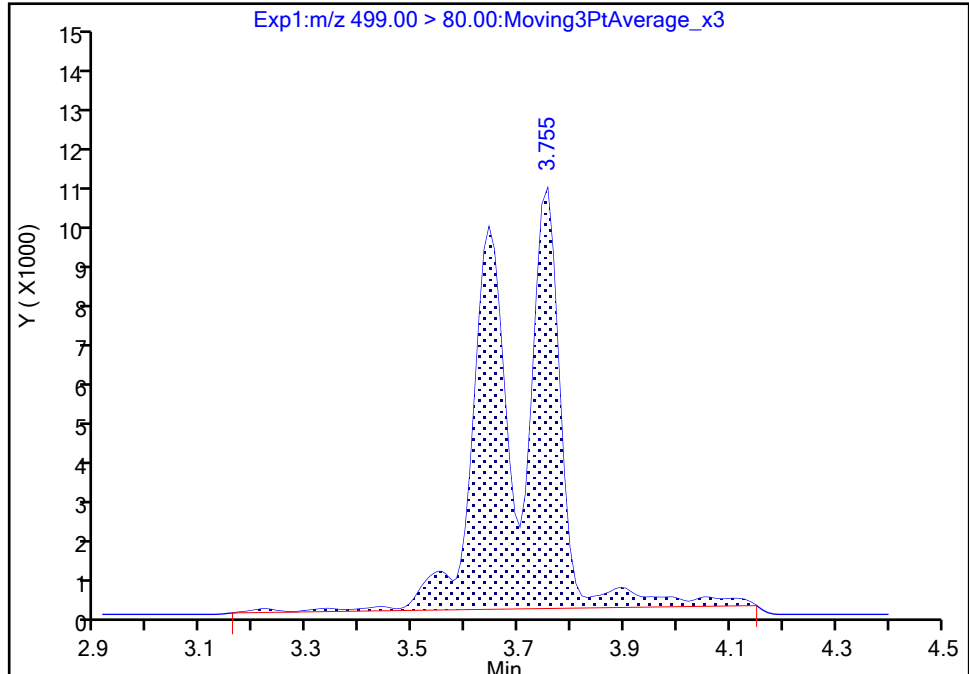
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d		
Injection Date:	27-Oct-2020 19:25:47	Instrument ID:	LC812
Lims ID:	480-176996-C-2-A	Lab Sample ID:	200-176996-2
Client ID:	TPW-33R		
Operator ID:	lc812tech	ALS Bottle#:	15
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL
Column:	C-18 (4.60 mm)	Detector	EXP1
		Worklist Smp#:	18

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

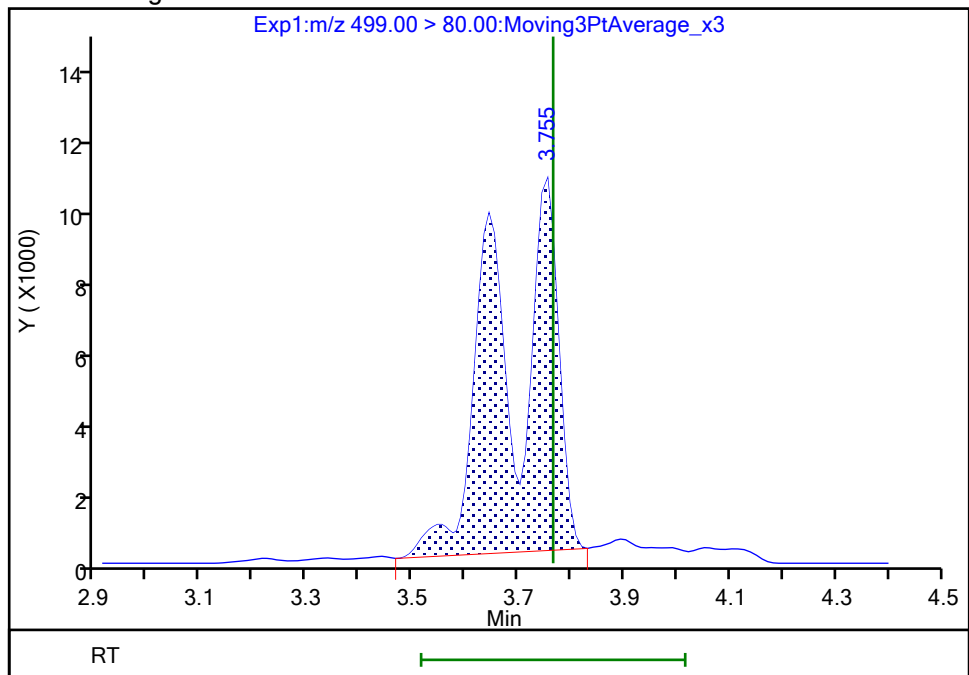
RT: 3.76
Area: 83953
Amount: 0.196756
Amount Units: ng/ml

Processing Integration Results



RT: 3.76
Area: 75138
Amount: 0.176097
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:13:33

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

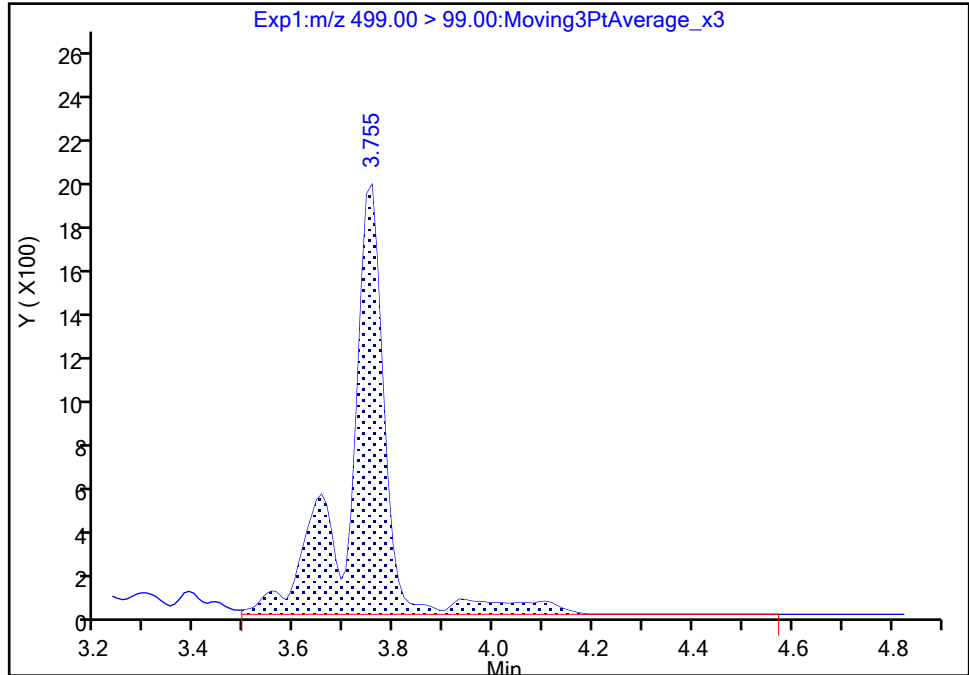
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d
Injection Date: 27-Oct-2020 19:25:47 Instrument ID: LC812
Lims ID: 480-176996-C-2-A Lab Sample ID: 200-176996-2
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

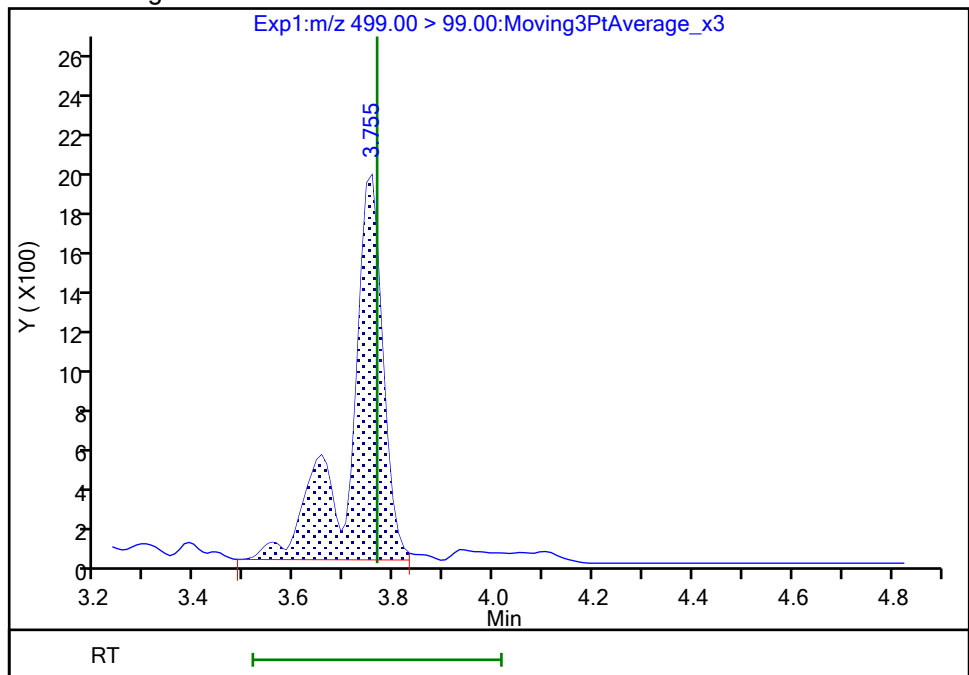
RT: 3.76
Area: 10369
Amount: 0.196756
Amount Units: ng/ml

Processing Integration Results



RT: 3.76
Area: 9092
Amount: 0.176097
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:13:46

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

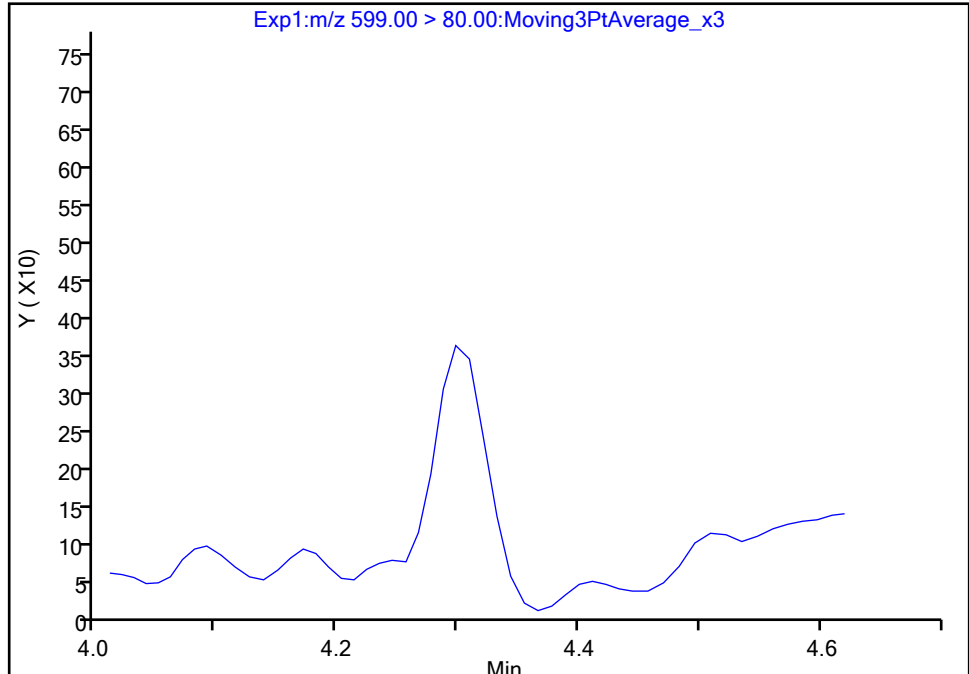
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d		
Injection Date:	27-Oct-2020 19:25:47	Instrument ID:	LC812
Lims ID:	480-176996-C-2-A	Lab Sample ID:	200-176996-2
Client ID:	TPW-33R		
Operator ID:	lc812tech	ALS Bottle#:	15
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL
Column:	C-18 (4.60 mm)	Detector	EXP1
		Worklist Smp#:	18

29 Perfluorodecanesulfonic acid, CAS: 335-77-3

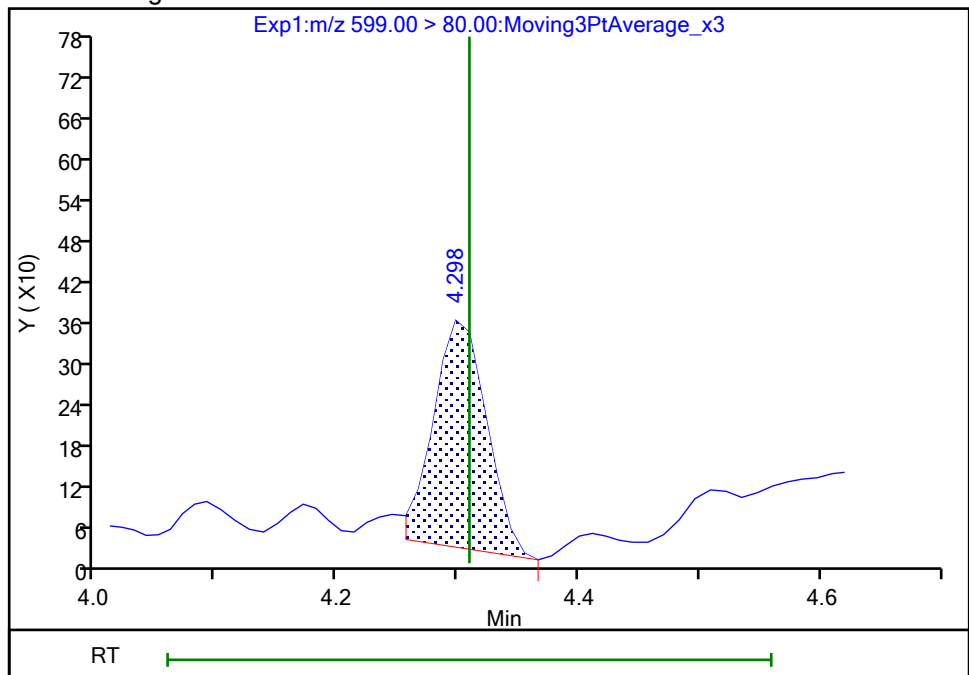
Signal: 1

Not Detected
Expected RT: 4.31

Processing Integration Results

RT: 4.30
Area: 1021
Amount: 0.003619
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:15:43

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

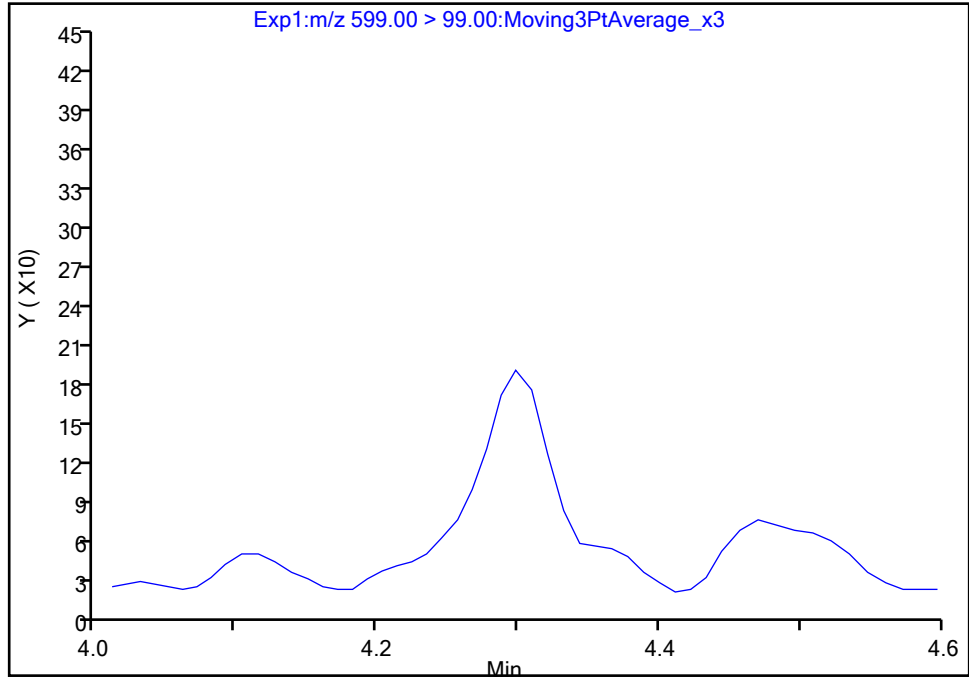
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d
Injection Date: 27-Oct-2020 19:25:47 Instrument ID: LC812
Lims ID: 480-176996-C-2-A Lab Sample ID: 200-176996-2
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

29 Perfluorodecanesulfonic acid, CAS: 335-77-3

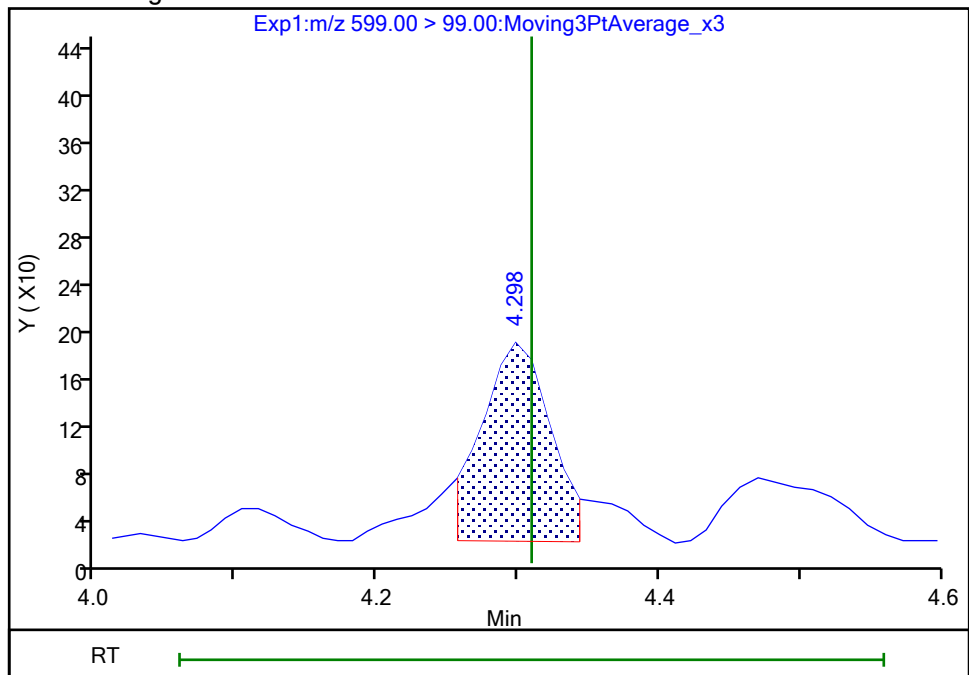
Signal: 2

Not Detected
Expected RT: 4.31

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:15:49

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

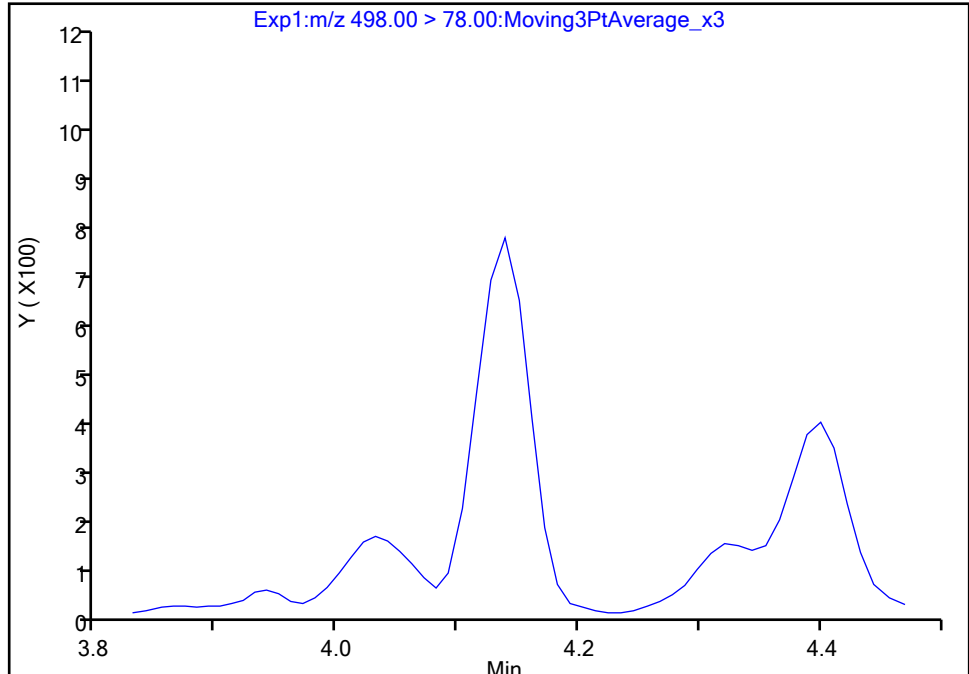
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d		
Injection Date:	27-Oct-2020 19:25:47	Instrument ID:	LC812
Lims ID:	480-176996-C-2-A	Lab Sample ID:	200-176996-2
Client ID:	TPW-33R		
Operator ID:	lc812tech	ALS Bottle#:	15
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL
Column:	C-18 (4.60 mm)	Detector	EXP1
		Worklist Smp#:	18

22 Perfluorooctanesulfonamide, CAS: 754-91-6

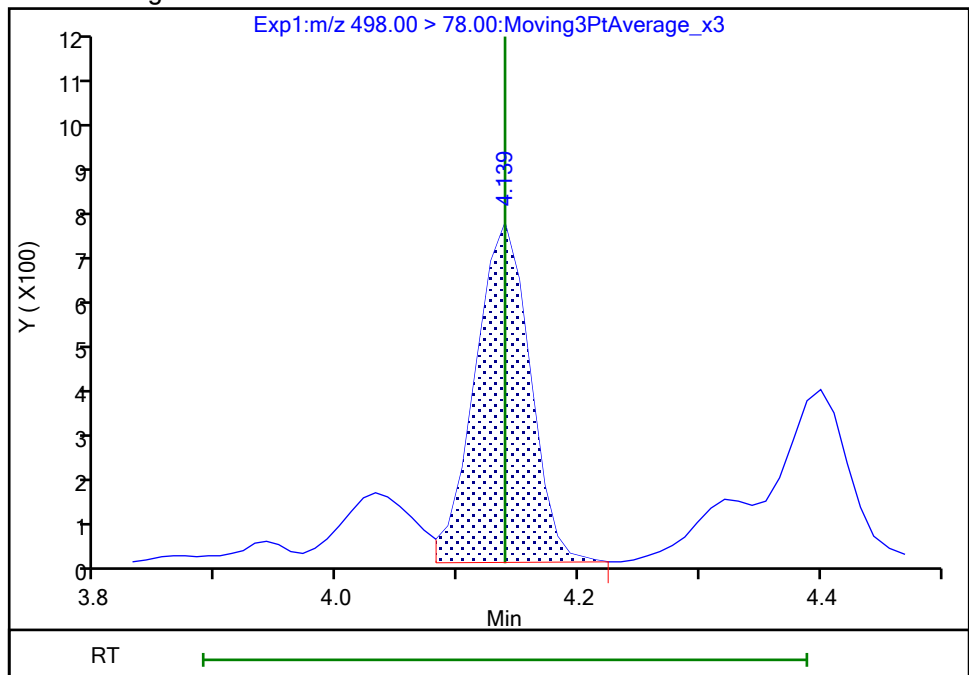
Signal: 1

Not Detected
Expected RT: 4.14

Processing Integration Results



Manual Integration Results

Reviewer: chirgwinb, 28-Oct-2020 12:46:06
Audit Action: Manually IntegratedAudit Reason: Incomplete Integration
Page 252 of 906

Eurofins TestAmerica, Burlington

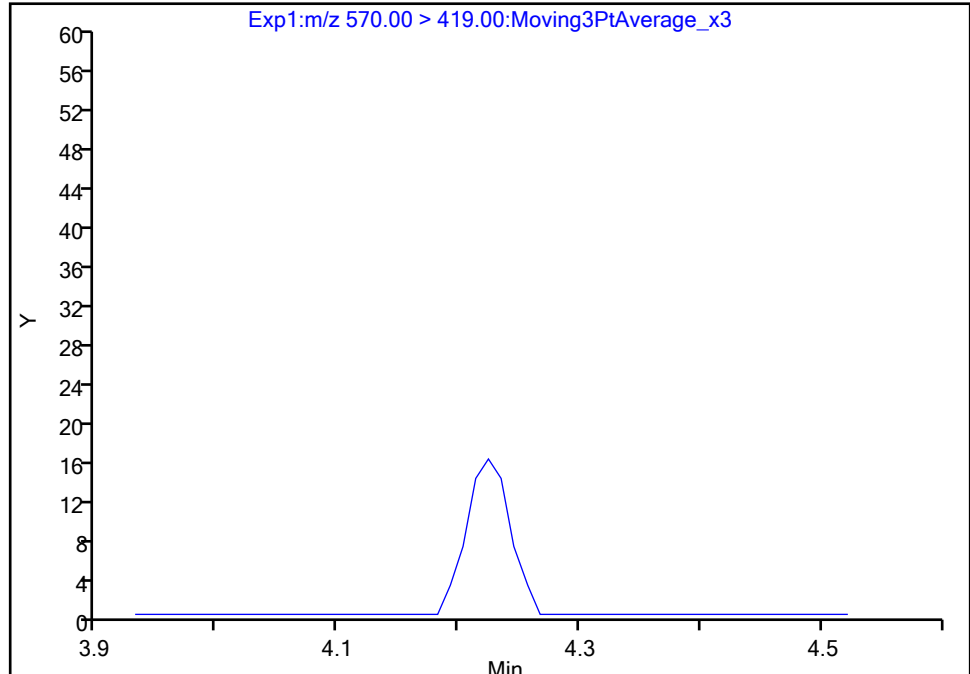
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d
Injection Date: 27-Oct-2020 19:25:47 Instrument ID: LC812
Lims ID: 480-176996-C-2-A Lab Sample ID: 200-176996-2
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

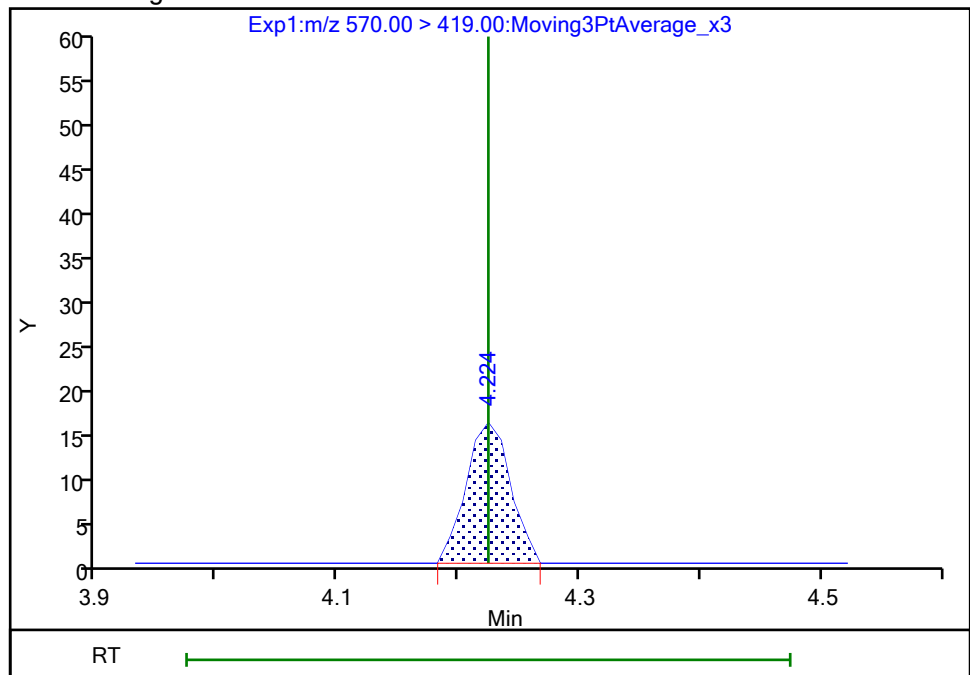
Not Detected
Expected RT: 4.22

Processing Integration Results



RT: 4.22
Area: 40
Amount: 0.002358
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:15:31

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

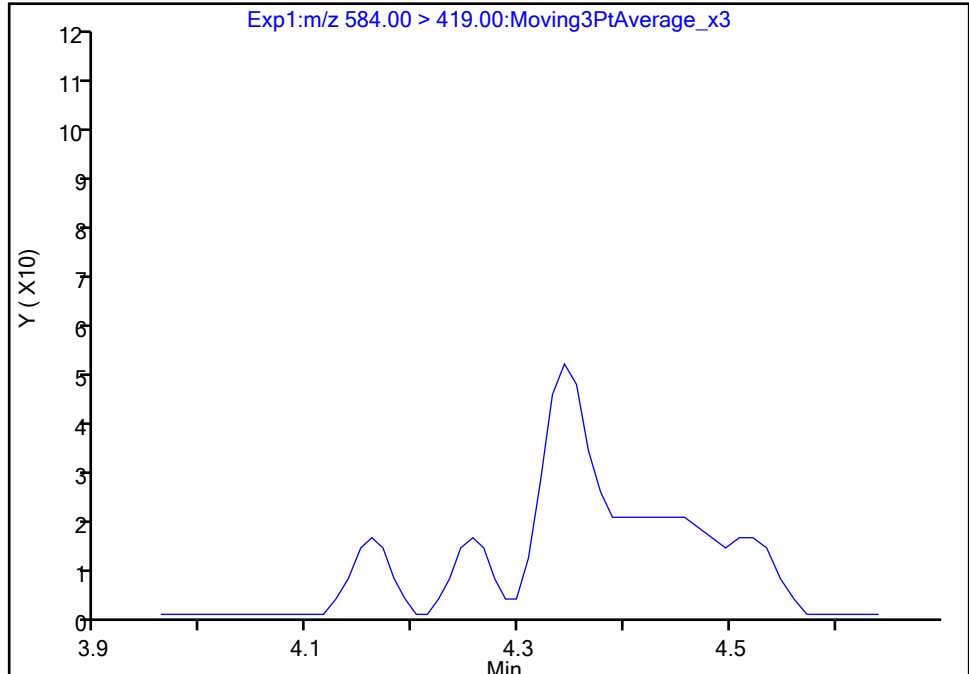
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d
Injection Date: 27-Oct-2020 19:25:47 Instrument ID: LC812
Lims ID: 480-176996-C-2-A Lab Sample ID: 200-176996-2
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 15 Worklist Smp#: 18
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

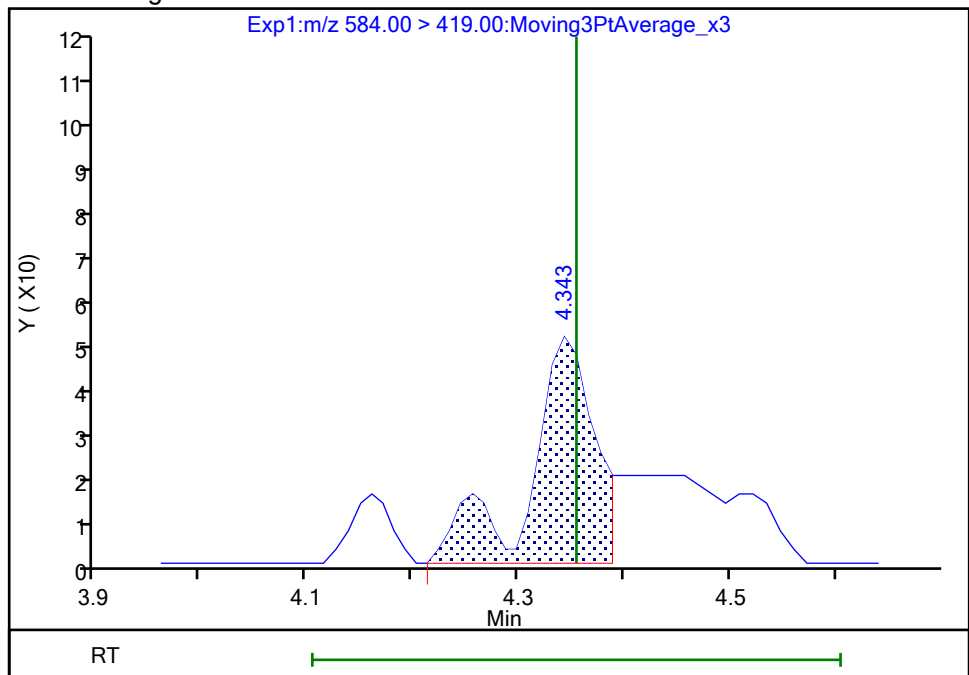
Signal: 1

Not Detected
Expected RT: 4.35

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:16:23

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

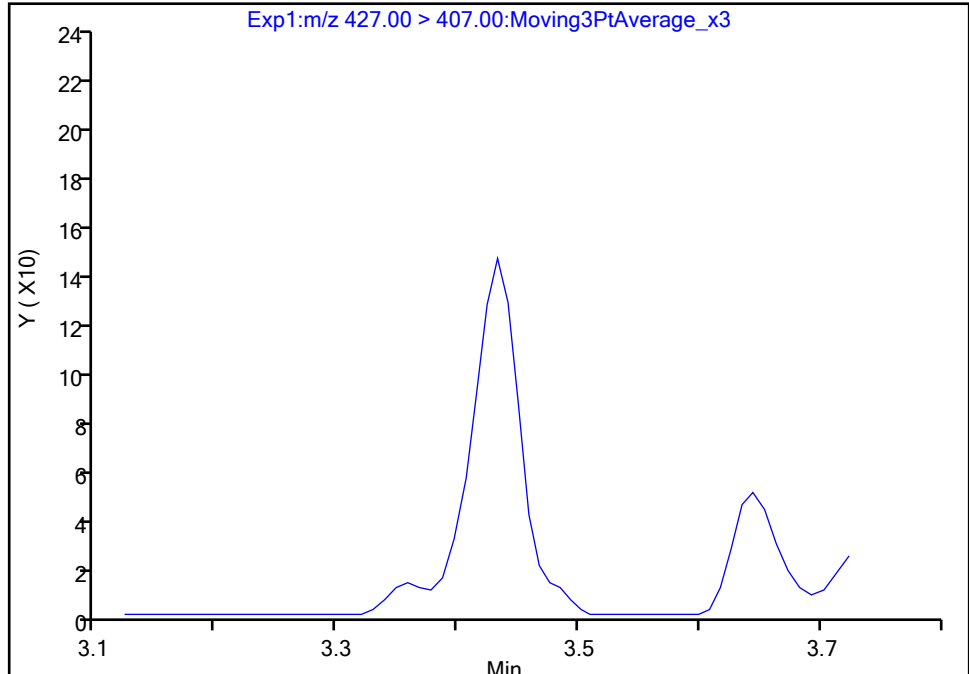
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d		
Injection Date:	27-Oct-2020 19:25:47	Instrument ID:	LC812
Lims ID:	480-176996-C-2-A	Lab Sample ID:	200-176996-2
Client ID:	TPW-33R		
Operator ID:	lc812tech	ALS Bottle#:	15
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL
Column:	C-18 (4.60 mm)	Detector	EXP1
		Worklist Smp#:	18

13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

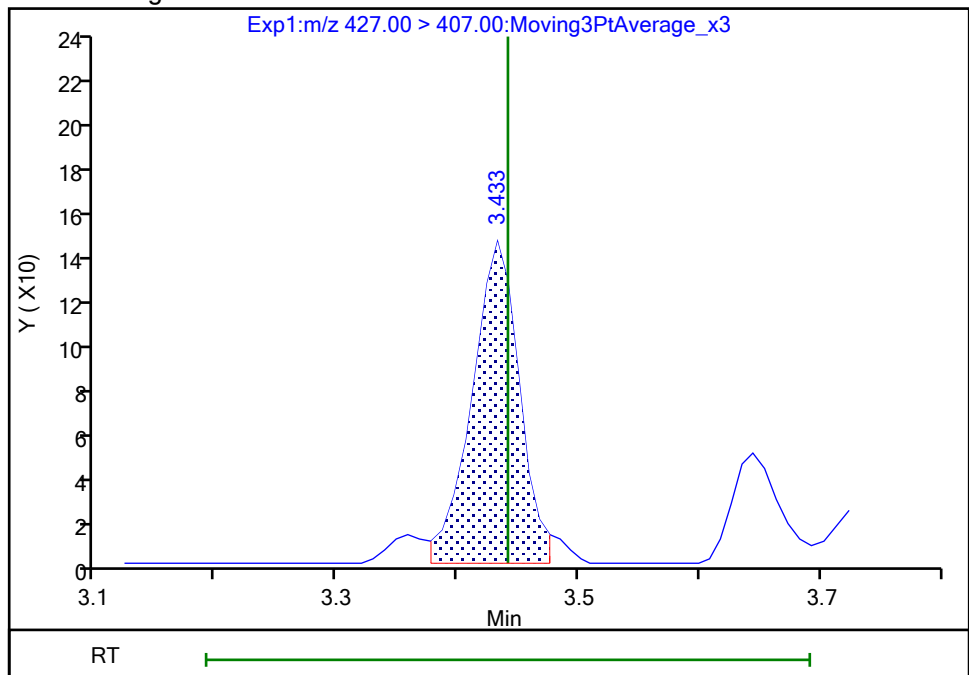
Signal: 1

Not Detected
Expected RT: 3.44

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:13:07

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

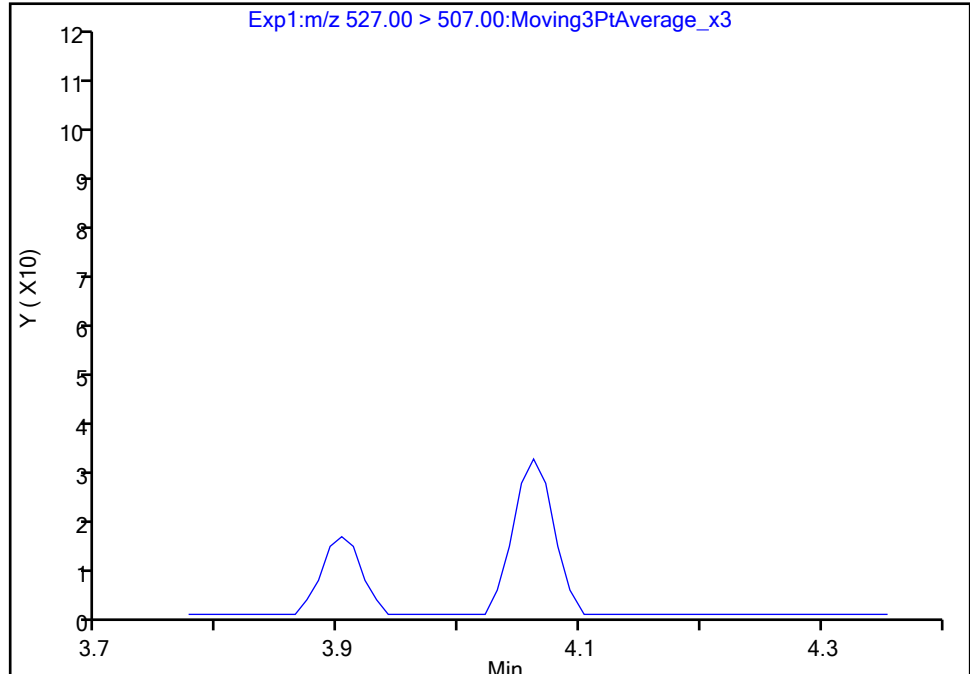
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d				
Injection Date:	27-Oct-2020 19:25:47	Instrument ID:	LC812		
Lims ID:	480-176996-C-2-A	Lab Sample ID:	200-176996-2		
Client ID:	TPW-33R				
Operator ID:	lc812tech	ALS Bottle#:	15	Worklist Smp#:	18
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

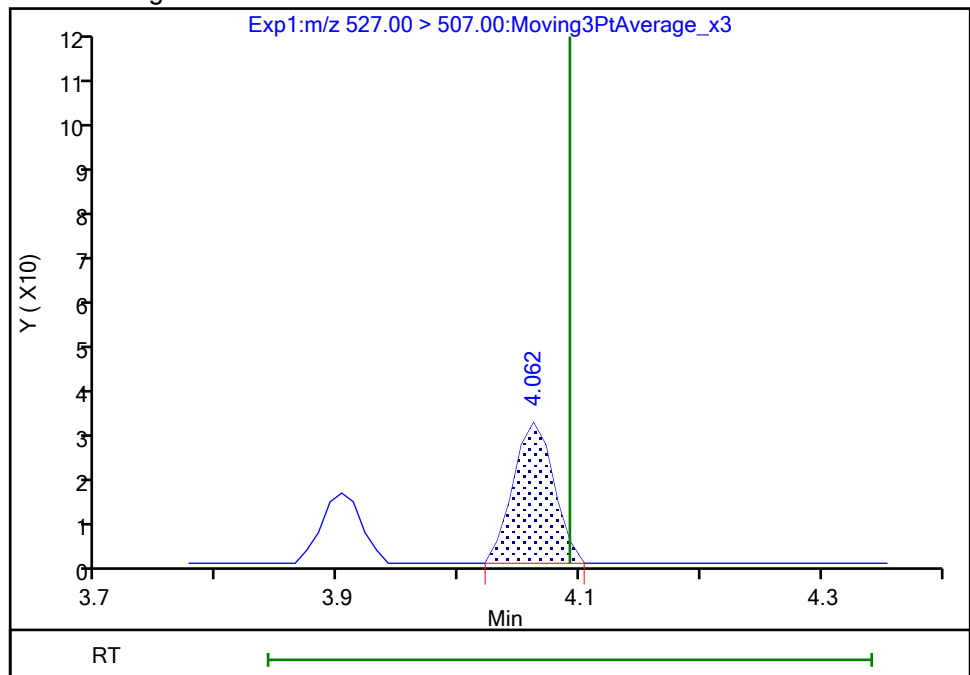
Signal: 1

Not Detected
Expected RT: 4.09

Processing Integration Results



Manual Integration Results



RT: 4.06
Area: 74
Amount: 0.002614
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:15:16

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

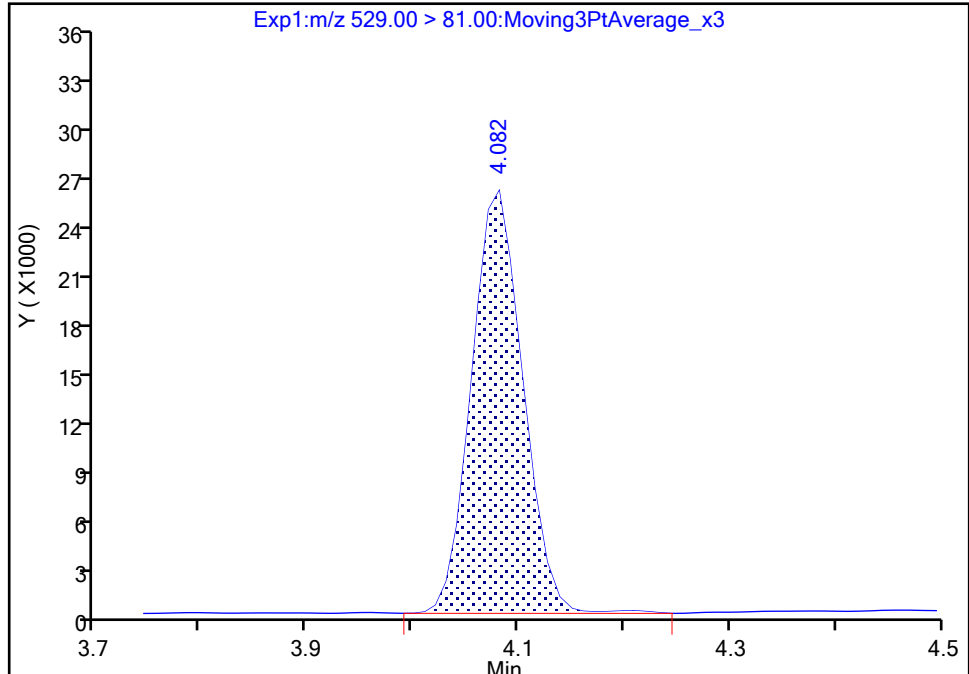
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d		
Injection Date:	27-Oct-2020 19:25:47	Instrument ID:	LC812
Lims ID:	480-176996-C-2-A	Lab Sample ID:	200-176996-2
Client ID:	TPW-33R		
Operator ID:	lc812tech	ALS Bottle#:	15
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL
Column:	C-18 (4.60 mm)	Detector:	EXP1
		Worklist Smp#:	18

D 26 M2-8:2 FTS, CAS: STL02280

Signal: 1

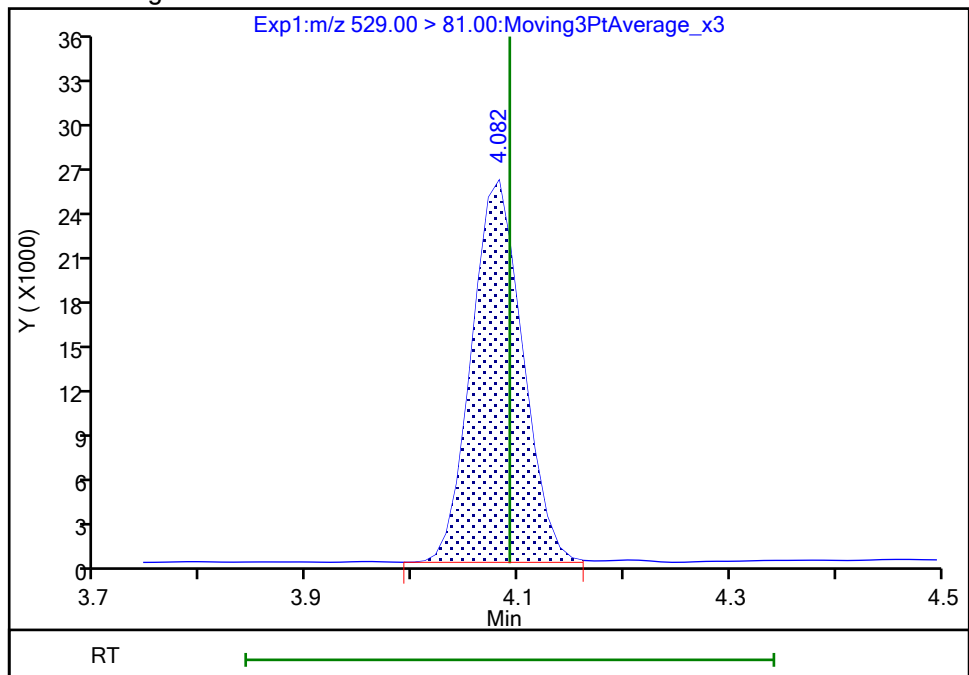
RT: 4.08
Area: 86146
Amount: 1.147489
Amount Units: ng/ml

Processing Integration Results



RT: 4.08
Area: 85631
Amount: 1.140629
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:10:42

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

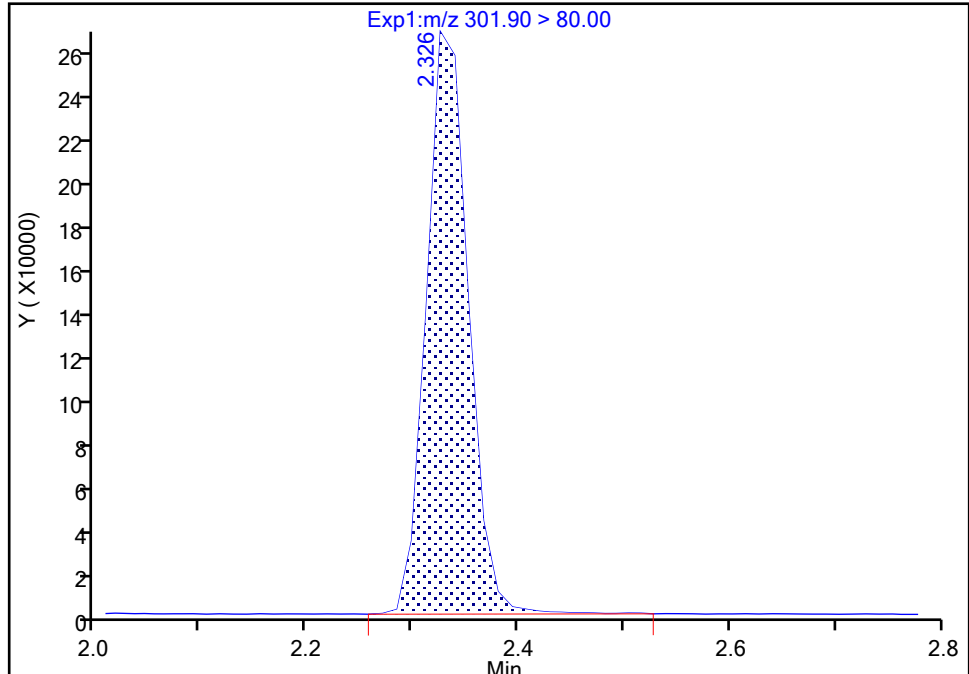
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A18.d		
Injection Date:	27-Oct-2020 19:25:47	Instrument ID:	LC812
Lims ID:	480-176996-C-2-A	Lab Sample ID:	200-176996-2
Client ID:	TPW-33R		
Operator ID:	lc812tech	ALS Bottle#:	15
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL
Column:	C-18 (4.60 mm)	Detector:	EXP1
		Worklist Smp#:	18

D 47 13C3 PFBS, CAS: STL02337

Signal: 1

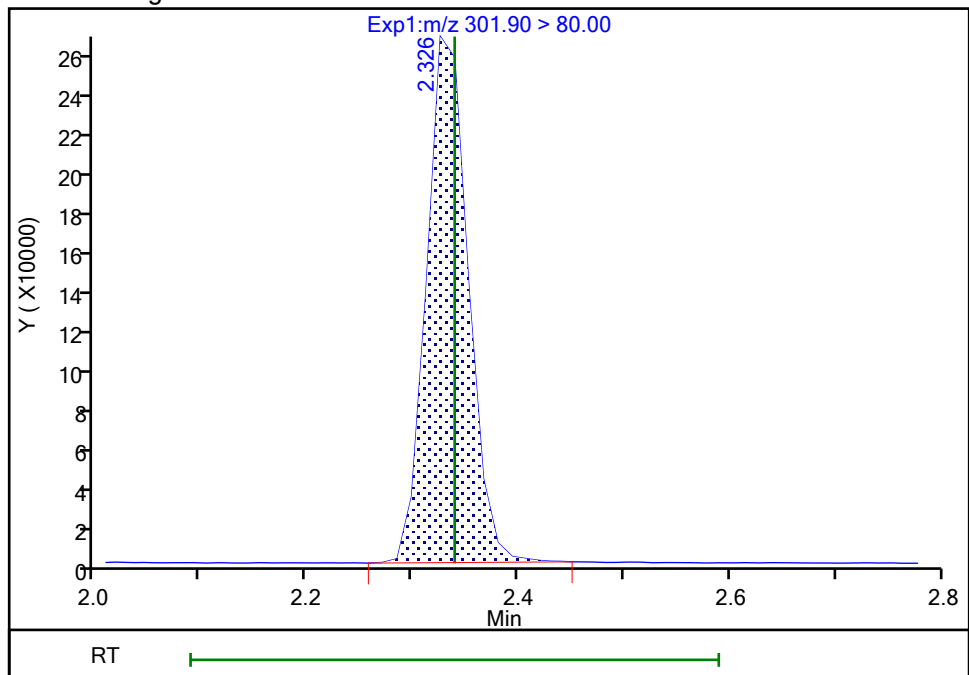
RT: 2.33
Area: 723479
Amount: 1.088429
Amount Units: ng/ml

Processing Integration Results



RT: 2.33
Area: 719119
Amount: 1.081870
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:10:12

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins TestAmerica, Burlington</u>	Job No.: <u>480-176996-1</u>
SDG No.: _____	
Client Sample ID: <u>B1231-MW-03</u>	Lab Sample ID: <u>480-176996-3</u>
Matrix: <u>Water</u>	Lab File ID: <u>PA201027A22.d</u>
Analysis Method: <u>537 (modified)</u>	Date Collected: <u>10/21/2020 10:20</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/27/2020 09:15</u>
Sample wt/vol: <u>279.8 (mL)</u>	Date Analyzed: <u>10/27/2020 19:58</u>
Con. Extract Vol.: <u>10 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>20 (uL)</u>	GC Column: <u>C-18</u> ID: <u>4.6 (mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>160481</u>	Units: <u>ng/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	10		4.5	1.0
2706-90-3	Perfluoropentanoic acid (PFPeA)	2.2		1.8	0.96
307-24-4	Perfluorohexanoic acid (PFHxA)	2.4		1.8	0.74
375-85-9	Perfluoroheptanoic acid (PFHpA)	2.5		1.8	0.41
335-67-1	Perfluorooctanoic acid (PFOA)	3.3		1.8	0.88
375-95-1	Perfluorononanoic acid (PFNA)	1.0	J	1.8	0.52
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.8	0.41
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.65
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.8	0.41
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.8	0.38
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.8	0.53
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.96	J	1.8	0.56
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1.5	J	1.8	0.60
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	0.35
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1.9		1.8	0.78
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.43
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND		1.8	0.51
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5	0.71
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5	0.83
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.5	0.64
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.8	0.59

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Client Sample ID: B1231-MW-03 Lab Sample ID: 480-176996-3
 Matrix: Water Lab File ID: PA201027A22.d
 Analysis Method: 537 (modified) Date Collected: 10/21/2020 10:20
 Extraction Method: 3535 Date Extracted: 10/27/2020 09:15
 Sample wt/vol: 279.8 (mL) Date Analyzed: 10/27/2020 19:58
 Con. Extract Vol.: 10 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: C-18 ID: 4.6 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 160481 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	97		50-150
STL01892	13C4 PFHpA	99		50-150
STL00990	13C4 PFOA	97		50-150
STL00991	13C4 PFOS	100		50-150
STL00995	13C5 PFNA	97		50-150
STL00992	13C4 PFBA	68		25-150
STL00993	13C2 PFHxA	92		50-150
STL00996	13C2 PFDA	89		50-150
STL00997	13C2 PFUnA	90		50-150
STL00998	13C2 PFDoA	77		50-150
STL01056	13C8 FOSA	89		25-150
STL01893	13C5 PFPeA	85		25-150
STL02116	13C2 PFTeDA	77		50-150
STL02118	d3-NMeFOSAA	81		50-150
STL02117	d5-NEtFOSAA	88		50-150
STL02279	M2-6:2 FTS	107		25-150
STL02280	M2-8:2 FTS	95		25-150
STL02337	13C3 PFBS	92		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A22.d
 Lims ID: 480-176996-C-3-A
 Client ID: B1231-MW-03
 Sample Type: Client
 Inject. Date: 27-Oct-2020 19:58:52 ALS Bottle#: 19 Worklist Smp#: 22
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: 480-176996-C-3-A
 Misc. Info.: 200-0043412-022 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Method: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 28-Oct-2020 13:19:45 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1652

First Level Reviewer: khanphomeea

Date: 28-Oct-2020 09:57:05

Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.972	1.981	-0.009	0.573	800941	0.8491		67.9	3603	
2 Perfluorobutanoic acid										M
212.90 > 169.00	1.981	1.990	-0.009	1.005	171008	0.2855		20.2		M
D 3 13C5 PFPeA										
267.90 > 223.00	2.312	2.326	-0.014	0.672	722147	1.07		85.4	744	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.312	2.326	-0.014	1.000	38262	0.0627		0.5		
D 47 13C3 PFBS										M
301.90 > 80.00	2.339	2.339	0.0	0.680	878911	1.07		91.8	65532	M
5 Perfluorobutanesulfonic acid										M
298.90 > 80.00	2.339	2.353	-0.014	1.000	20327	0.0270	Target=2.07	5.0		
298.90 > 99.00	2.339	2.353	-0.014	1.000	10913		1.86(1.04-3.11)	1.6		M
D 7 13C2 PFHxA										
315.00 > 270.00	2.691	2.703	-0.012	0.782	803857	1.15		92.4	3472	
6 Perfluorohexanoic acid										M
313.00 > 269.00	2.691	2.703	-0.012	1.000	44382	0.0685	Target=12.44	3.7		M
313.00 > 119.00	2.691	2.703	-0.012	1.000	3928		11.30(6.22-18.66)	5.5		M
D 11 18O2 PFHxS										
403.00 > 84.00	3.073	3.084	-0.011	0.893	680528	1.15		97.4	3288	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.073	3.084	-0.011	1.000	26074	0.0410	Target=4.60	12.8		M
399.00 > 99.00	3.073	3.084	-0.011	1.000	5569		4.68(2.30-6.91)	4.0		M
D 9 13C4 PFHpA										
367.00 > 322.00	3.073	3.084	-0.011	0.893	783716	1.24		99.0	4834	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.084	3.084	0.0	1.004	43798	0.0697	Target=3.34	4.4		
363.00 > 169.00	3.084	3.084	0.0	1.004	12927		3.39(1.67-5.01)	28.8		

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
16 Perfluoroheptanesulfonic acid										M
449.00 > 80.00	3.432	3.441	-0.009	0.914	2102	0.003758	Target=7.08	5.5		M
449.00 > 99.00	3.424	3.441	-0.017	0.912	562		3.74(3.54-10.63)	1.5		M
D 12 M2-6:2 FTS										
429.00 > 81.00	3.432	3.441	-0.009	0.997	99938	1.27		107	178	
13 1H,1H,2H,2H-perfluorooctanesulfo										M
427.00 > 407.00	3.432	3.441	-0.009	1.000	779	0.0116		20.7		M
D 14 13C4 PFOA										
417.00 > 372.00	3.441	3.450	-0.009	1.000	786839	1.21		97.1	3783	
* 62 13C2 PFOA										
415.00 > 370.00	3.441	3.450	-0.009		822885	1.25			4187	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.441	3.458	-0.017	1.000	60509	0.0931	Target=2.29	18.5		
413.00 > 169.00	3.441	3.458	-0.017	1.000	28899		2.09(1.14-3.43)	85.4		
D 18 13C4 PFOS										
503.00 > 80.00	3.754	3.765	-0.011	1.091	576924	1.19		99.9	1430	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.765	3.765	0.0	1.003	27991	0.0534	Target=7.10	20.8		M
499.00 > 99.00	3.765	3.765	0.0	1.003	3690		7.59(3.55-10.64)	9.6		M
D 19 13C5 PFNA										
468.00 > 423.00	3.775	3.786	-0.011	1.097	659484	1.21		96.6	5684	
20 Perfluorononanoic acid										M
463.00 > 419.00	3.785	3.786	-0.001	1.003	15232	0.0284	Target=5.83	5.5		M
463.00 > 169.00	3.775	3.786	-0.011	1.000	2265		6.72(2.91-8.74)	22.6		M
D 23 13C2 PFDA										
515.00 > 470.00	4.071	4.082	-0.011	1.183	583343	1.11		89.1	5636	
24 Perfluorodecanoic acid										M
513.00 > 469.00	4.081	4.082	-0.001	1.002	1891	0.004096	Target=6.81	2.5		M
513.00 > 169.00	4.071	4.082	-0.011	1.000	552		3.43(3.41-10.22)	5.4		M
D 26 M2-8:2 FTS										
529.00 > 81.00	4.081	4.092	-0.011	1.186	106288	1.14		95.4	250	
25 1H,1H,2H,2H-perfluorodecanesulfo										M
527.00 > 507.00	4.071	4.092	-0.021	0.998	75	0.002135				M
D 21 13C8 FOSA										
506.00 > 78.00	4.138	4.139	-0.001	1.203	938082	1.11		88.9	5961	
22 Perfluorooctanesulfonamide										M
498.00 > 78.00	4.138	4.139	-0.001	1.000	1833	0.002613		9.3		M
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.214	4.214	0.0	1.225	30092	1.01		80.7	624	
28 N-methylperfluorooctanesulfonami										M
570.00 > 419.00	4.214	4.224	-0.010	1.000	162	0.007131		2.3		M
D 30 13C2 PFUnA										
565.00 > 520.00	4.332	4.343	-0.011	1.259	444082	1.12		89.9	7714	
31 Perfluoroundecanoic acid										M
563.00 > 519.00	4.332	4.343	-0.011	1.000	870	0.002483	Target=6.57	1.2		M
563.00 > 169.00	4.332	4.343	-0.011	1.000	118		7.37(3.28-9.85)	2.1		M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.344	4.343	0.001	1.262	35250	1.10		88.0	543	
33 N-ethylperfluorooctanesulfonamid										M
584.00 > 419.00	4.367	4.355	0.012	1.005	41	0.001588			1.2	M
D 36 13C2 PFDaA										
615.00 > 570.00	4.561	4.561	0.0	1.326	399642	0.9564		76.5	3833	
37 Perfluorododecanoic acid										M
613.00 > 569.00	4.561	4.561	0.0	1.000	1569	0.005032	Target=5.16		2.2	M
613.00 > 169.00	4.561	4.561	0.0	1.000	400		3.92(2.58-7.75)		4.9	M
41 Perfluorotridecanoic acid										M
663.00 > 619.00	4.772	4.772	0.0	1.046	1125	0.004249	Target=3.30		1.3	M
663.00 > 169.00	4.772	4.772	0.0	1.046	332		3.39(1.65-4.95)		12.8	M
D 43 13C2 PFTeDA										
715.00 > 670.00	4.969	4.969	0.0	1.444	285878	0.9604		76.8	5365	
42 Perfluorotetradecanoic acid										M
713.00 > 169.00	4.969	4.969	0.0	1.000	296	0.005651	Target=1.06		8.8	M
713.00 > 219.00	4.950	4.969	-0.019	0.996	417		0.71(0.53-1.59)		11.5	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A22.d

Injection Date: 27-Oct-2020 19:58:52

Instrument ID: LC812

Lims ID: 480-176996-C-3-A

Lab Sample ID: 200-176996-3

Client ID: B1231-MW-03

Operator ID: lc812tech

ALS Bottle#: 19

Worklist Smp#: 22

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

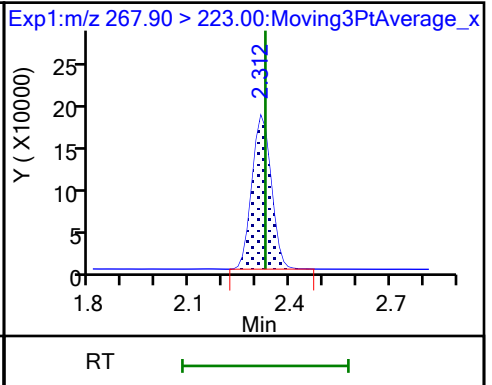
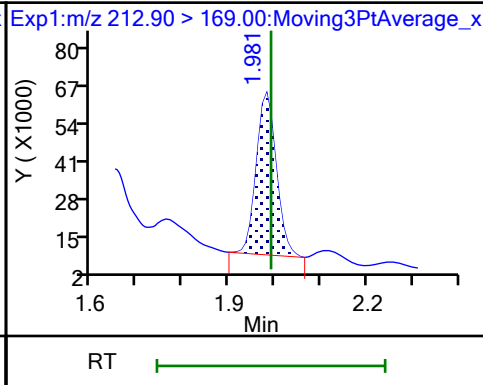
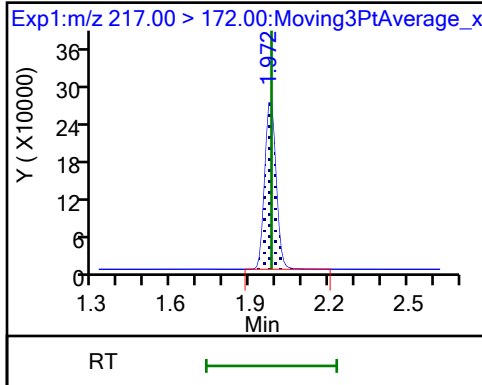
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid (M)

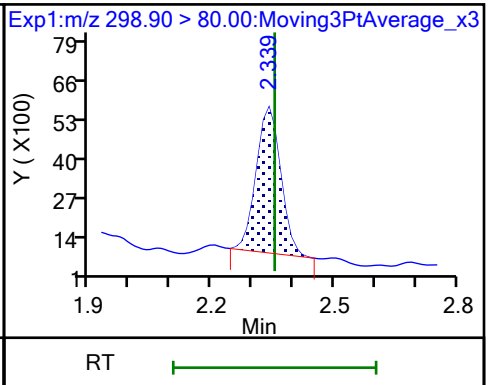
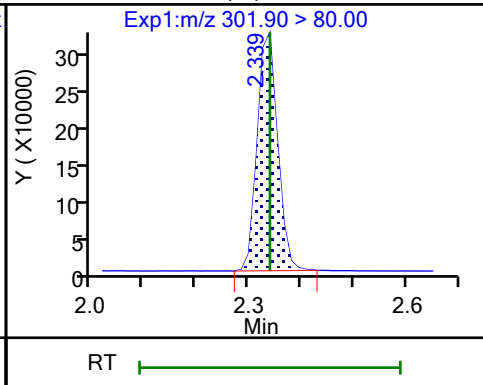
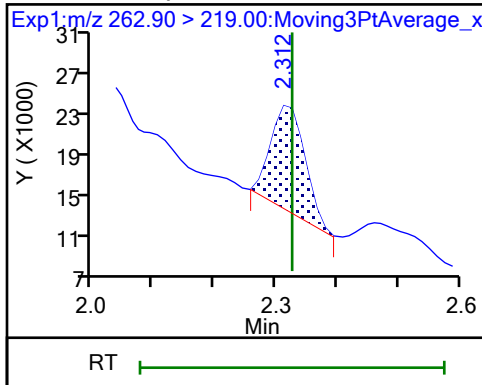
D 3 13C5 PFPeA



4 Perfluoropentanoic acid

D 47 13C3 PFBS (M)

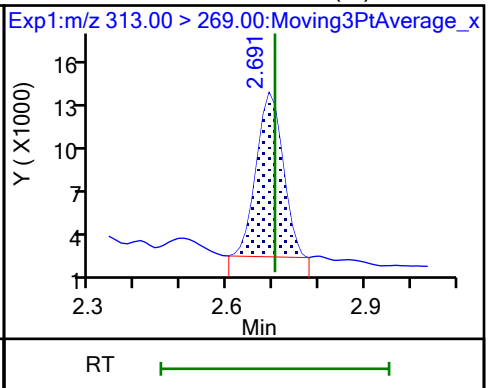
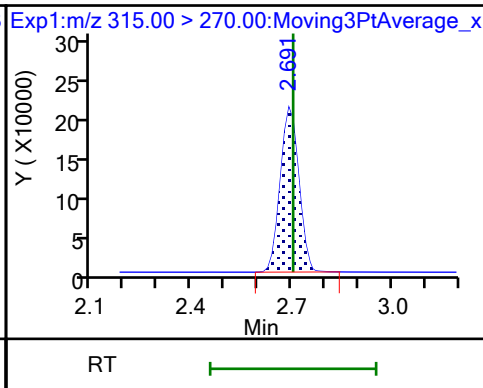
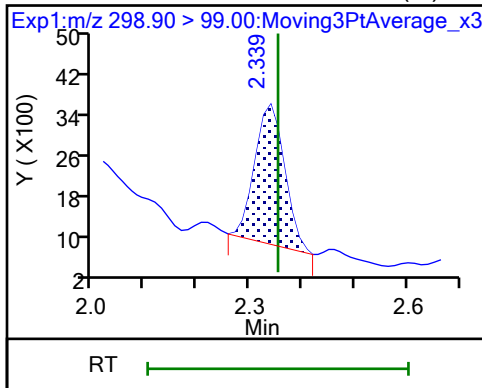
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid (M)

D 7 13C2 PFHxA

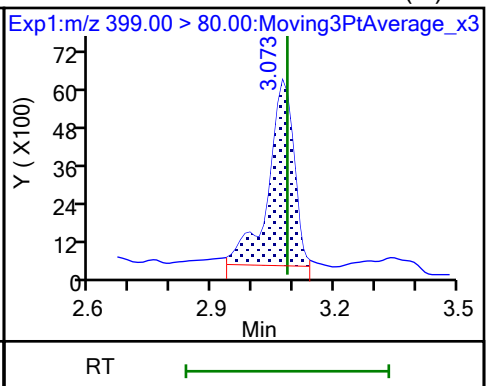
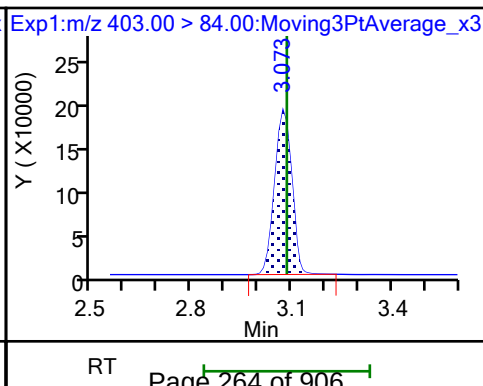
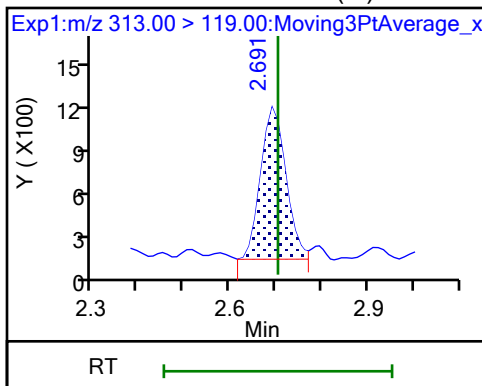
6 Perfluorohexanoic acid (M)

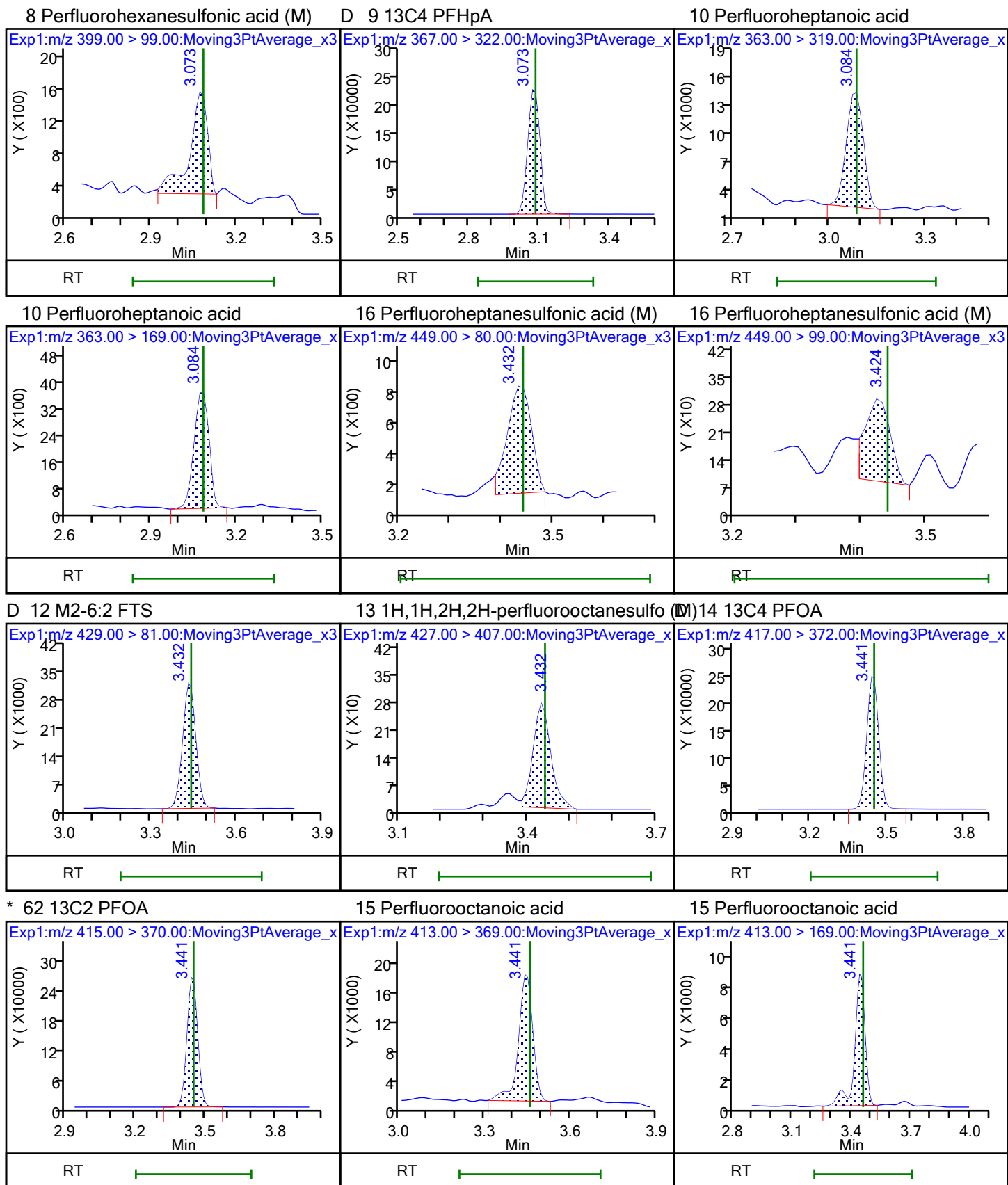


6 Perfluorohexanoic acid (M)

D 11 18O2 PFHxS

8 Perfluorohexanesulfonic acid (M)

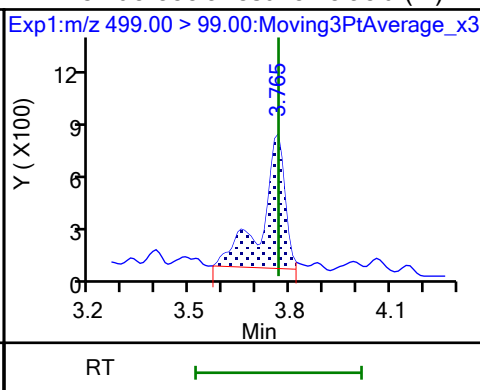
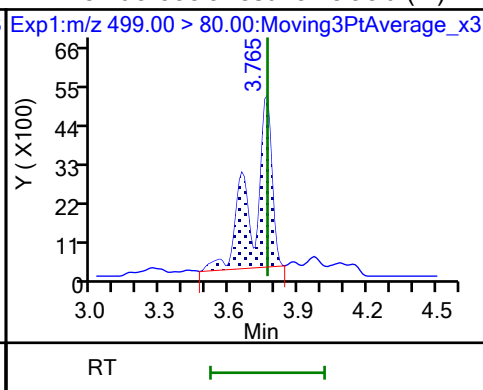
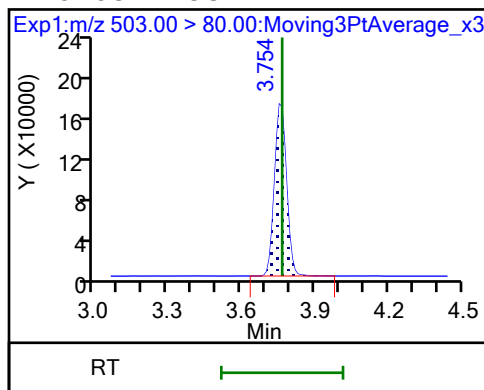




D 18 13C4 PFOS

17 Perfluorooctanesulfonic acid (M)

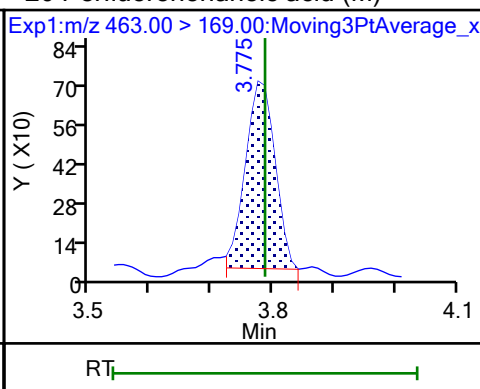
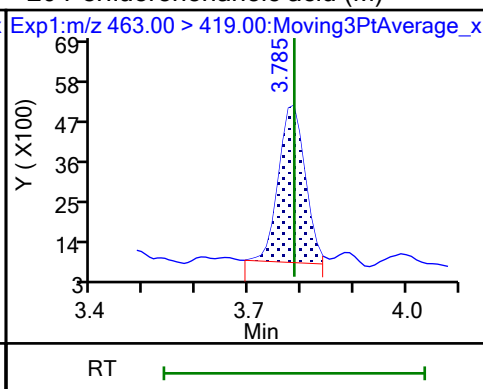
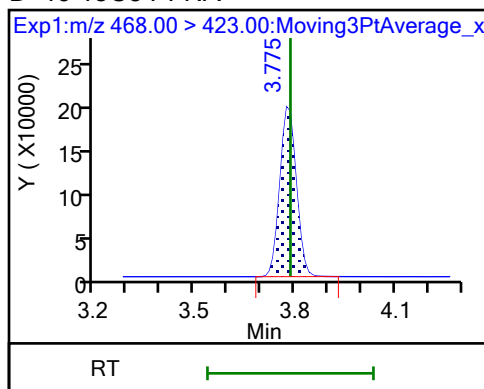
17 Perfluorooctanesulfonic acid (M)



D 19 13C5 PFNA

20 Perfluorononanoic acid (M)

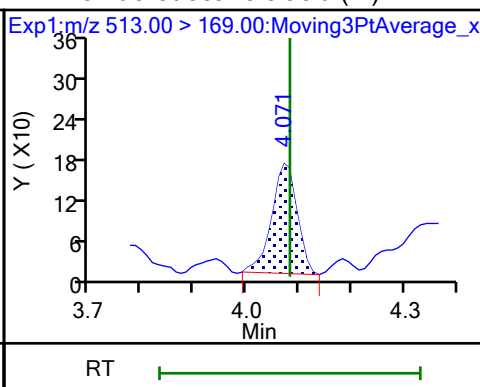
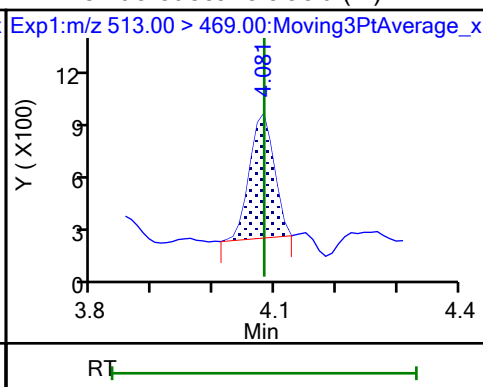
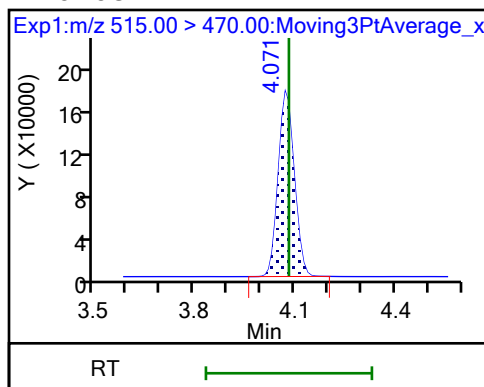
20 Perfluorononanoic acid (M)



D 23 13C2 PFDA

24 Perfluorodecanoic acid (M)

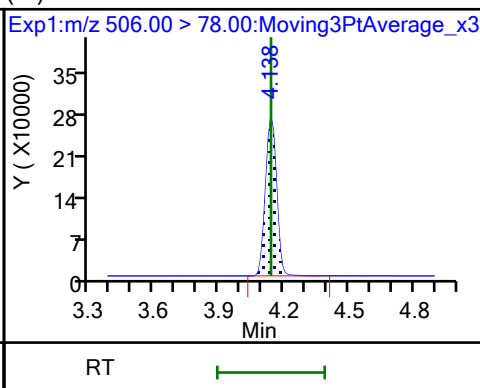
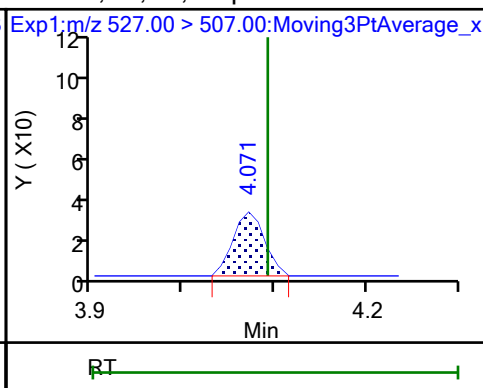
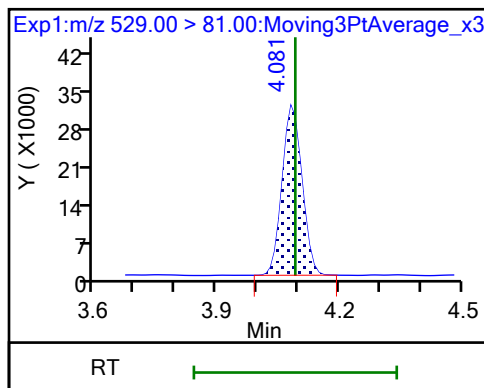
24 Perfluorodecanoic acid (M)

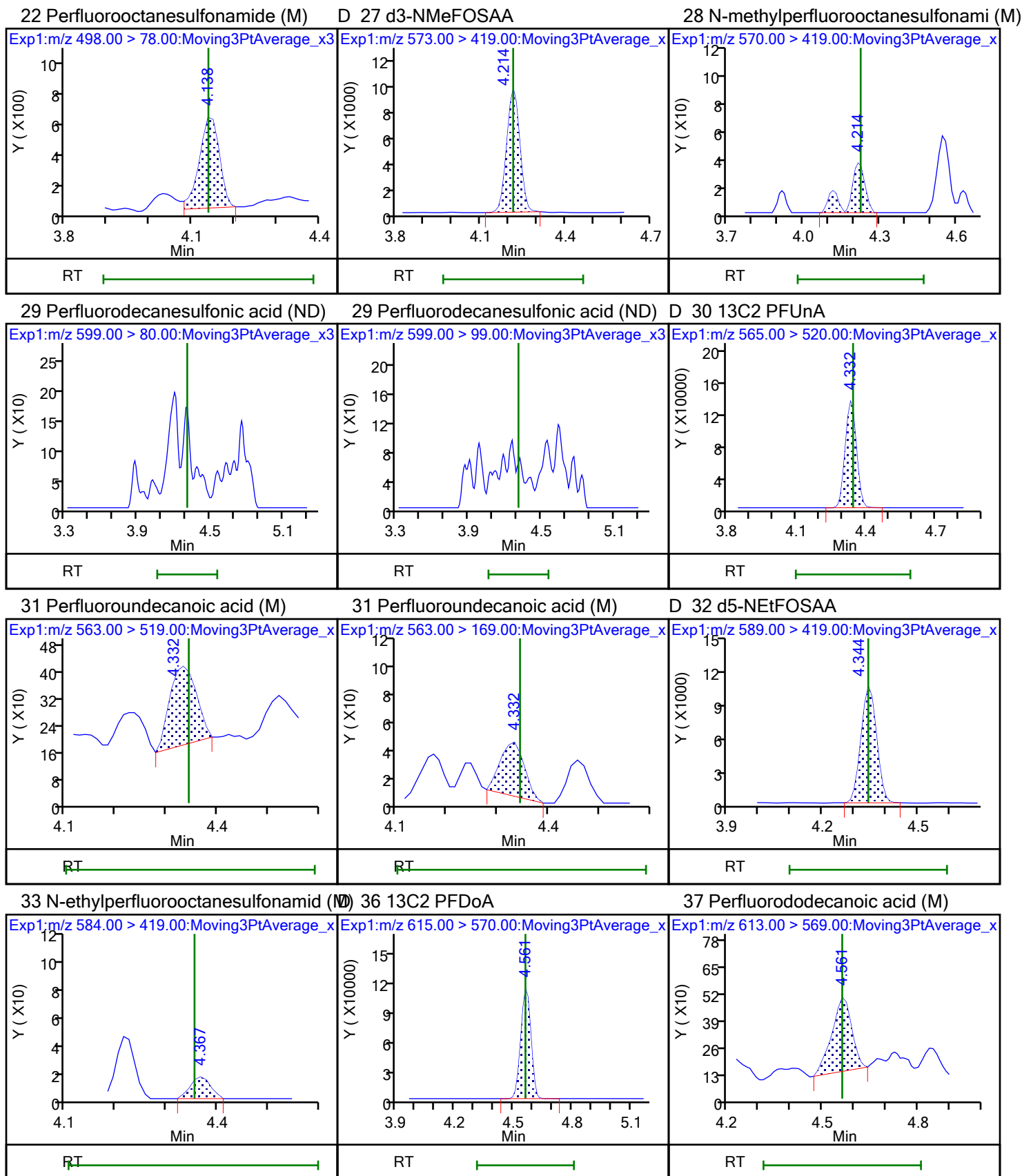


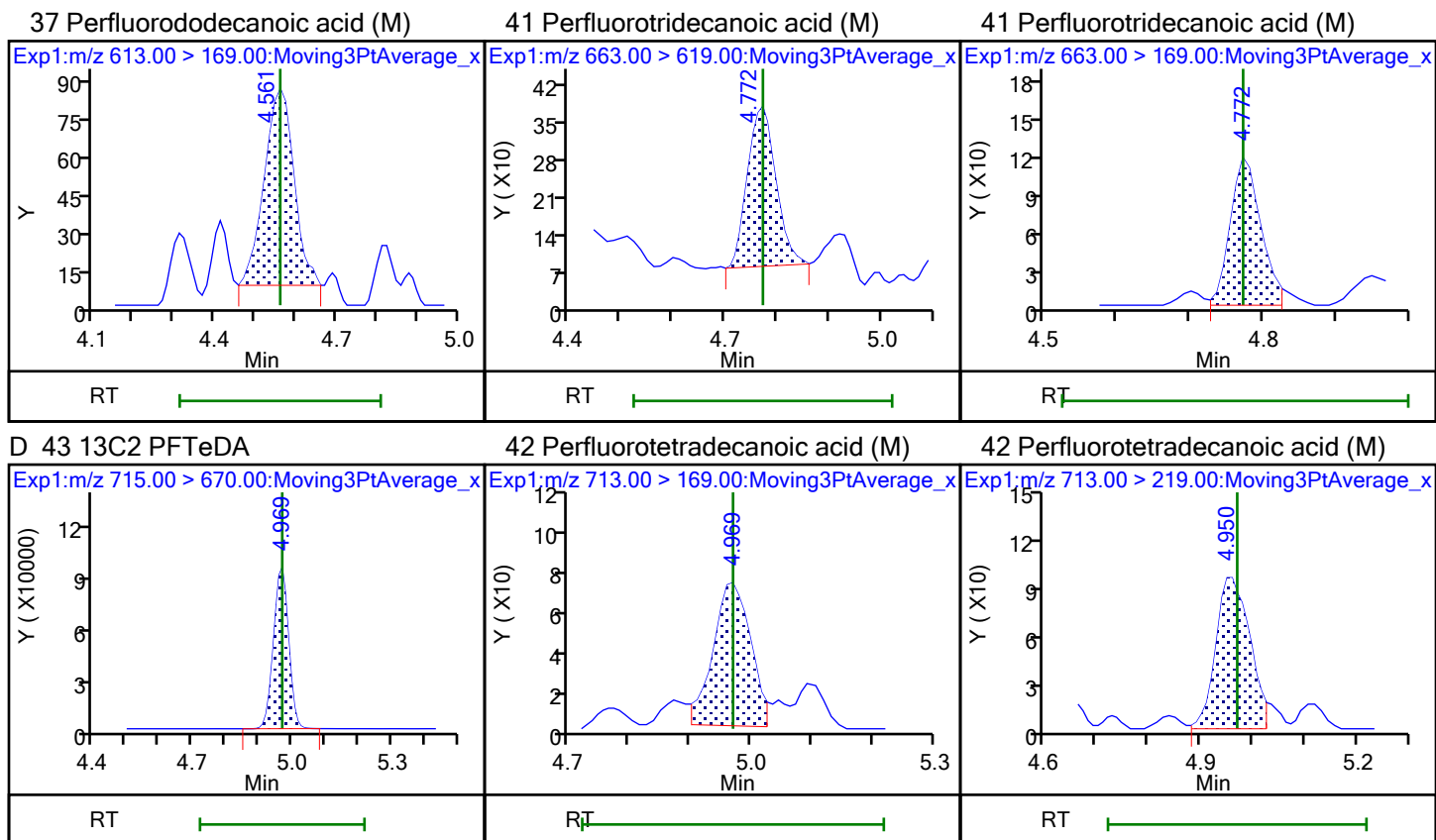
D 26 M2-8:2 FTS

25 1H,1H,2H,2H-perfluorodecanesulfonic acid (M)

21 13C8 FOSA







Eurofins TestAmerica, Burlington

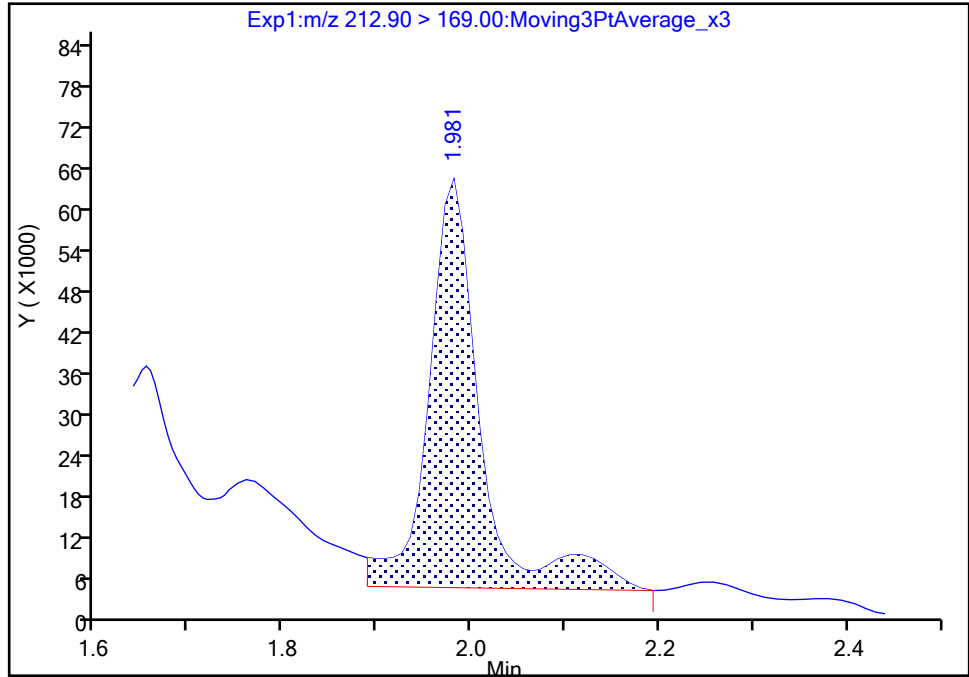
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Injection Date:	27-Oct-2020 19:58:52	Instrument ID:	LC812		
Lims ID:	480-176996-C-3-A	Lab Sample ID:	200-176996-3		
Client ID:	B1231-MW-03				
Operator ID:	lc812tech	ALS Bottle#:	19	Worklist Smp#:	22
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

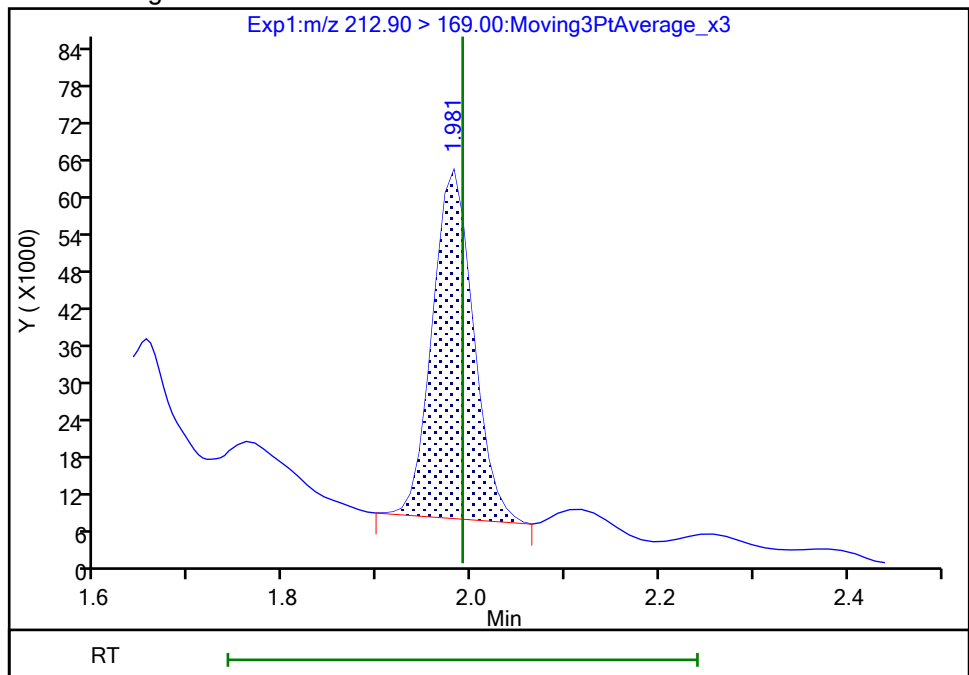
RT: 1.98
Area: 230147
Amount: 0.384258
Amount Units: ng/ml

Processing Integration Results



RT: 1.98
Area: 171008
Amount: 0.285519
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:52:42

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

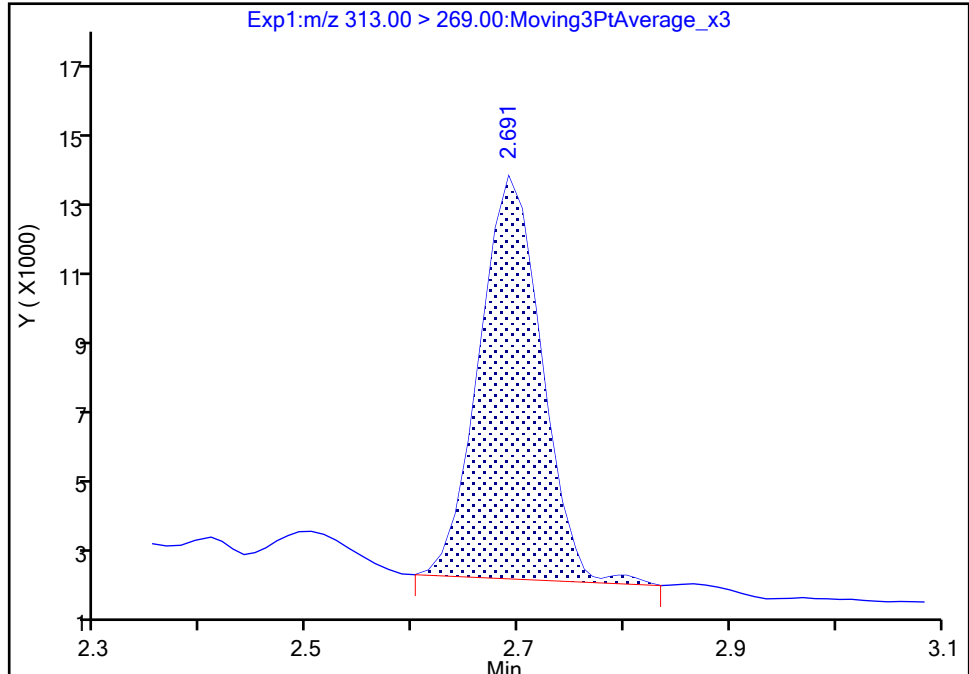
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Injection Date:	27-Oct-2020 19:58:52	Instrument ID:	LC812		
Lims ID:	480-176996-C-3-A	Lab Sample ID:	200-176996-3		
Client ID:	B1231-MW-03				
Operator ID:	lc812tech	ALS Bottle#:	19	Worklist Smp#:	22
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

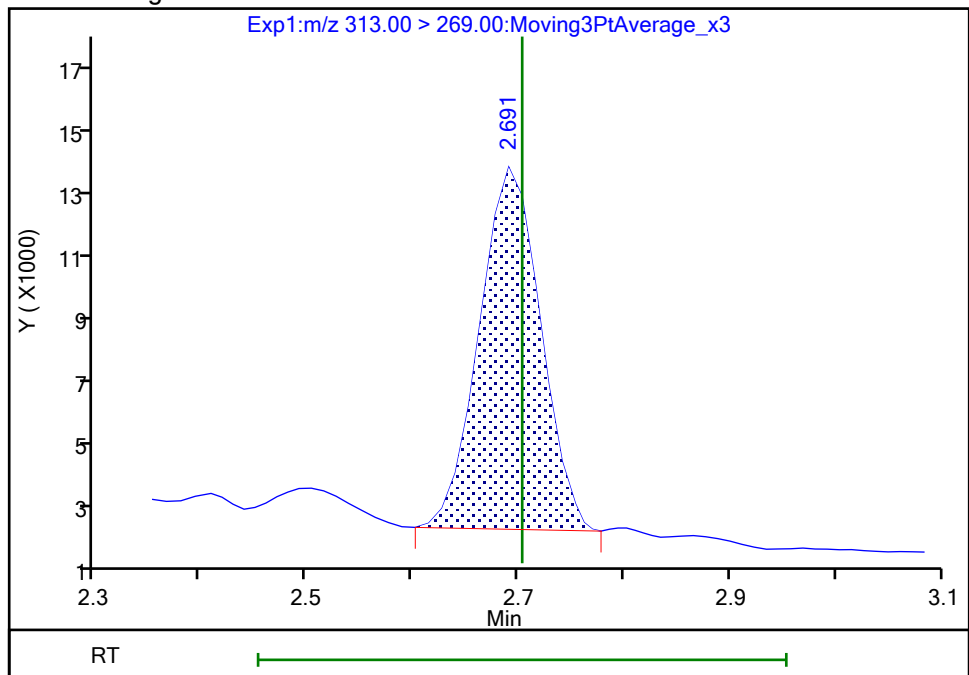
RT: 2.69
Area: 45481
Amount: 0.070235
Amount Units: ng/ml

Processing Integration Results



RT: 2.69
Area: 44382
Amount: 0.068538
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:52:56

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

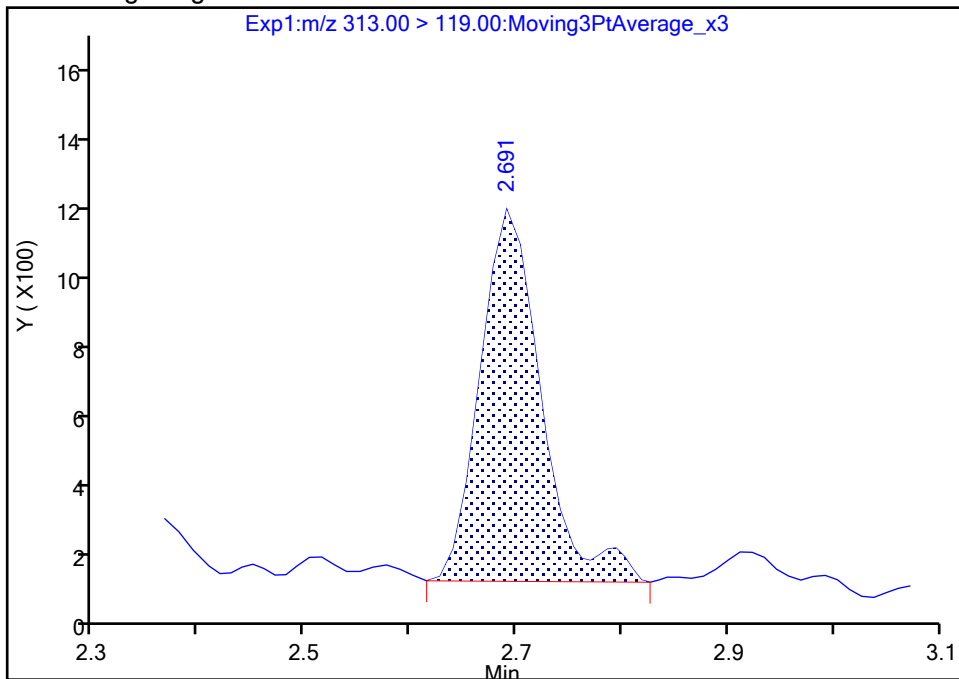
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Injection Date: 27-Oct-2020 19:58:52 Instrument ID: LC812
Lims ID: 480-176996-C-3-A Lab Sample ID: 200-176996-3
Client ID: B1231-MW-03
Operator ID: lc812tech ALS Bottle#: 19 Worklist Smp#: 22
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

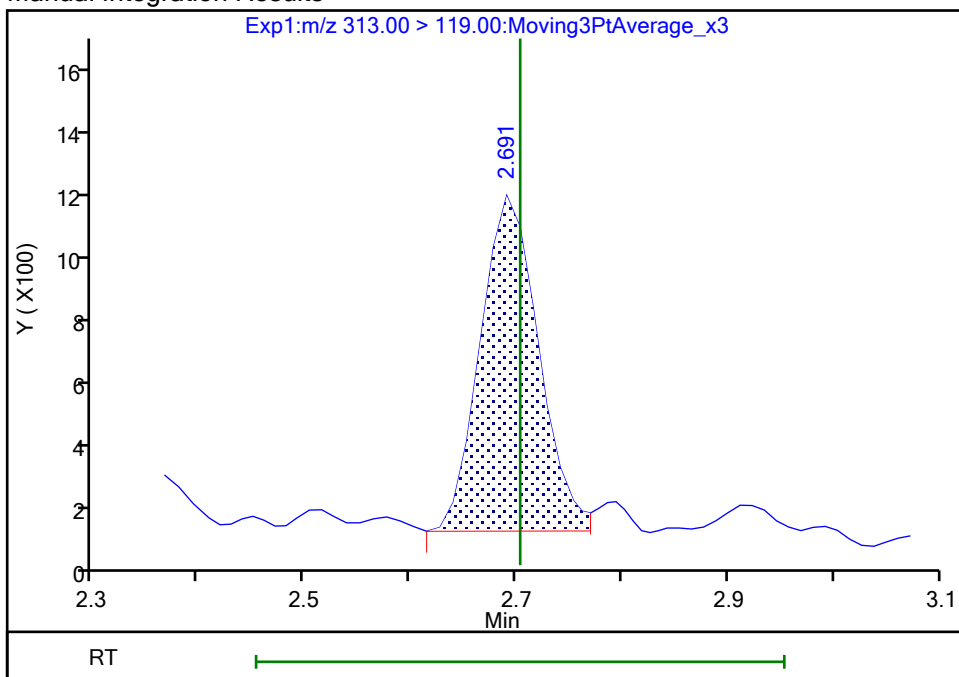
RT: 2.69
Area: 4140
Amount: 0.070235
Amount Units: ng/ml

Processing Integration Results



RT: 2.69
Area: 3928
Amount: 0.068538
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:53:10

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

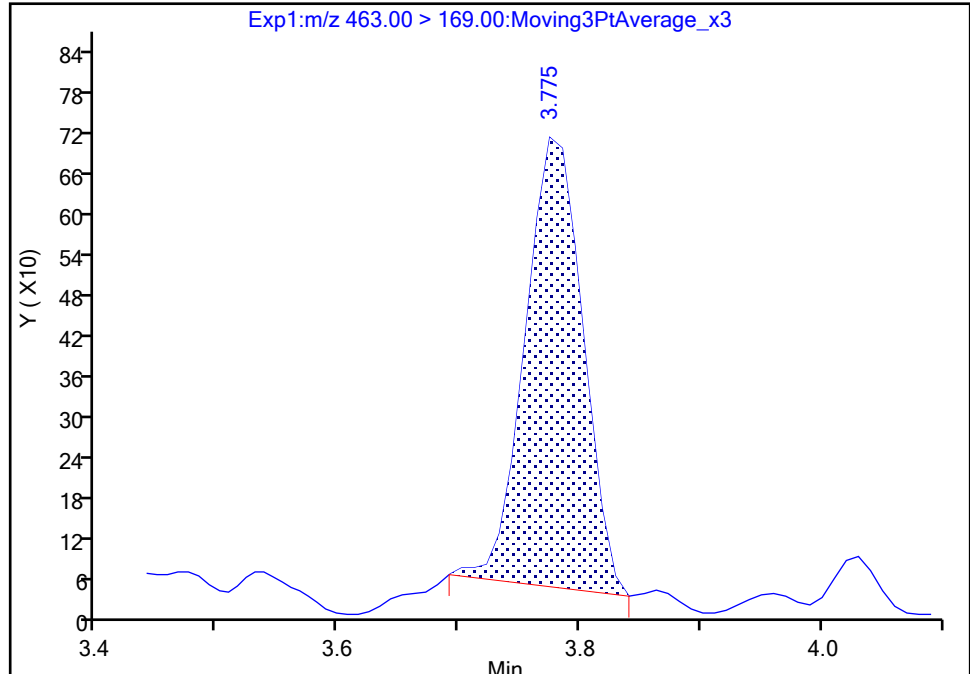
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Injection Date:	27-Oct-2020 19:58:52	Instrument ID:	LC812		
Lims ID:	480-176996-C-3-A	Lab Sample ID:	200-176996-3		
Client ID:	B1231-MW-03				
Operator ID:	lc812tech	ALS Bottle#:	19	Worklist Smp#:	22
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

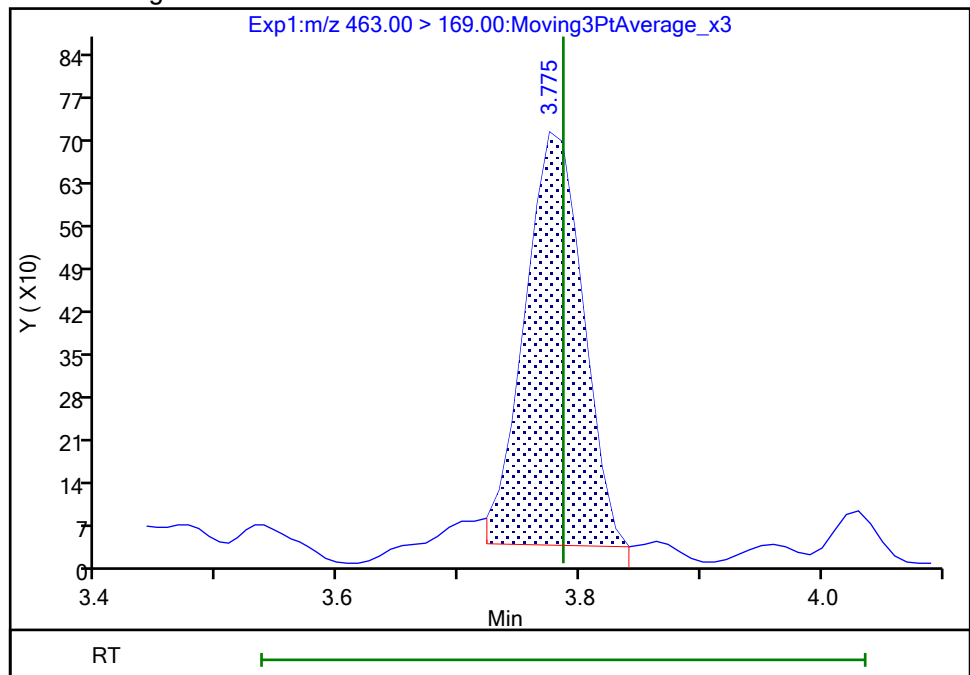
RT: 3.77
Area: 2217
Amount: 0.030298
Amount Units: ng/ml

Processing Integration Results



RT: 3.77
Area: 2265
Amount: 0.028351
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:55:12

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

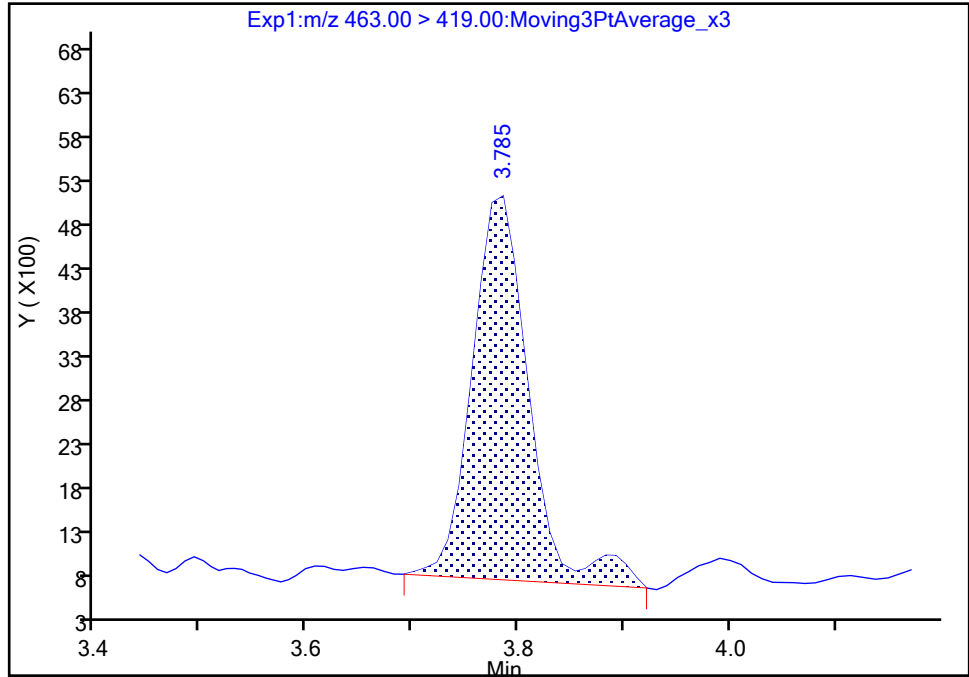
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Injection Date: 27-Oct-2020 19:58:52 Instrument ID: LC812
Lims ID: 480-176996-C-3-A Lab Sample ID: 200-176996-3
Client ID: B1231-MW-03
Operator ID: lc812tech ALS Bottle#: 19 Worklist Smp#: 22
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

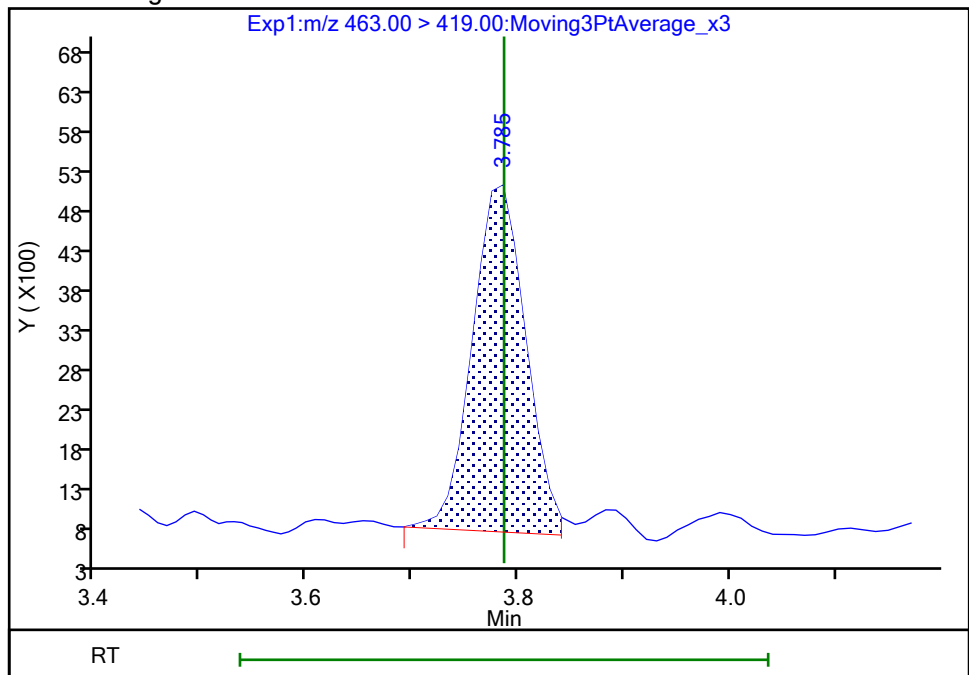
RT: 3.79
Area: 16278
Amount: 0.030298
Amount Units: ng/ml

Processing Integration Results



RT: 3.79
Area: 15232
Amount: 0.028351
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:55:13

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

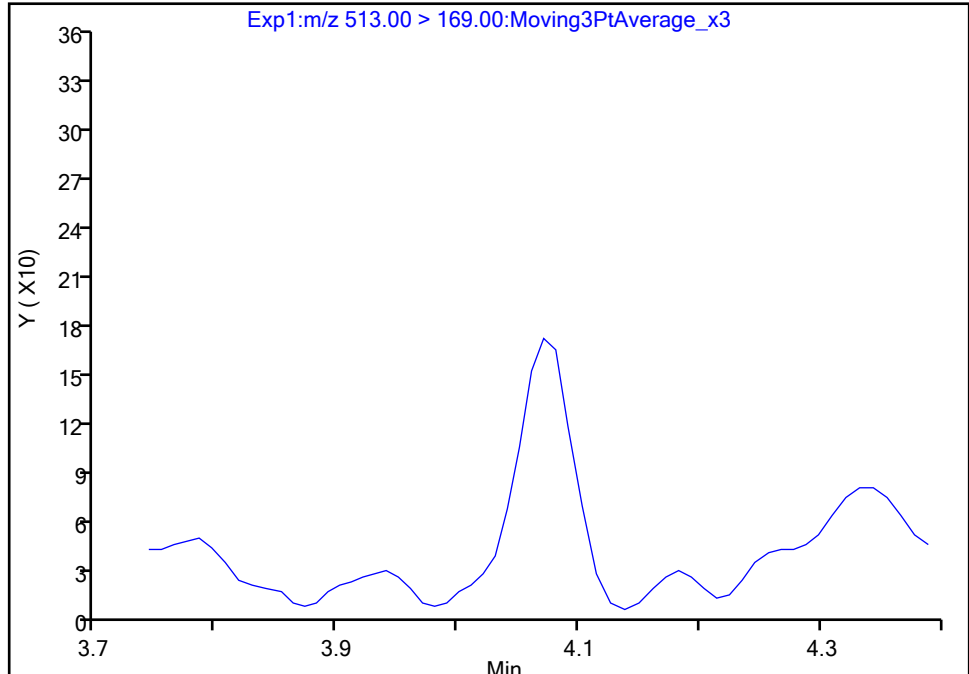
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Injection Date:	27-Oct-2020 19:58:52	Instrument ID:	LC812
Lims ID:	480-176996-C-3-A	Lab Sample ID:	200-176996-3
Client ID:	B1231-MW-03		
Operator ID:	lc812tech	ALS Bottle#:	19
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL
Column:	C-18 (4.60 mm)	Detector:	EXP1
		Worklist Smp#:	22

24 Perfluorodecanoic acid, CAS: 335-76-2

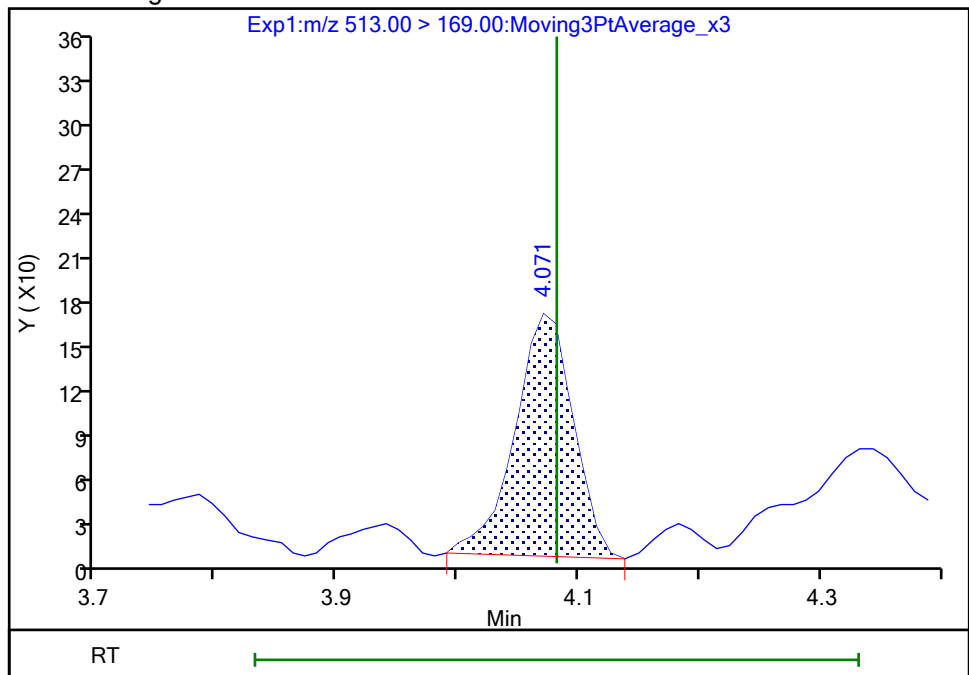
Signal: 2

Not Detected
Expected RT: 4.08

Processing Integration Results



Manual Integration Results



RT: 4.07
Area: 552
Amount: 0.004096
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:55:21

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

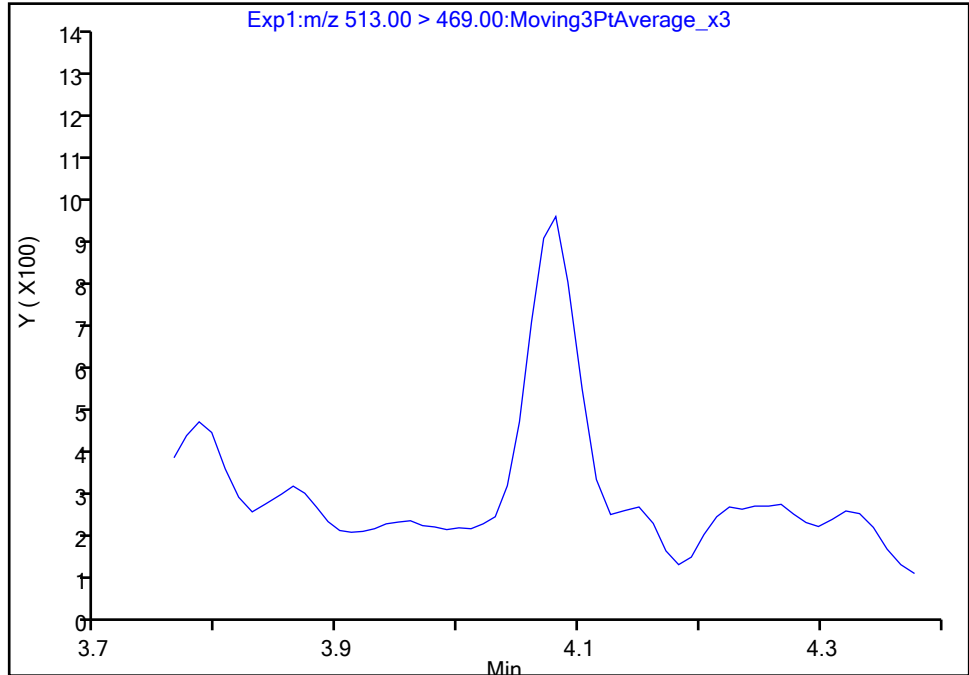
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Injection Date: 27-Oct-2020 19:58:52 Instrument ID: LC812
Lims ID: 480-176996-C-3-A Lab Sample ID: 200-176996-3
Client ID: B1231-MW-03
Operator ID: lc812tech ALS Bottle#: 19 Worklist Smp#: 22
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

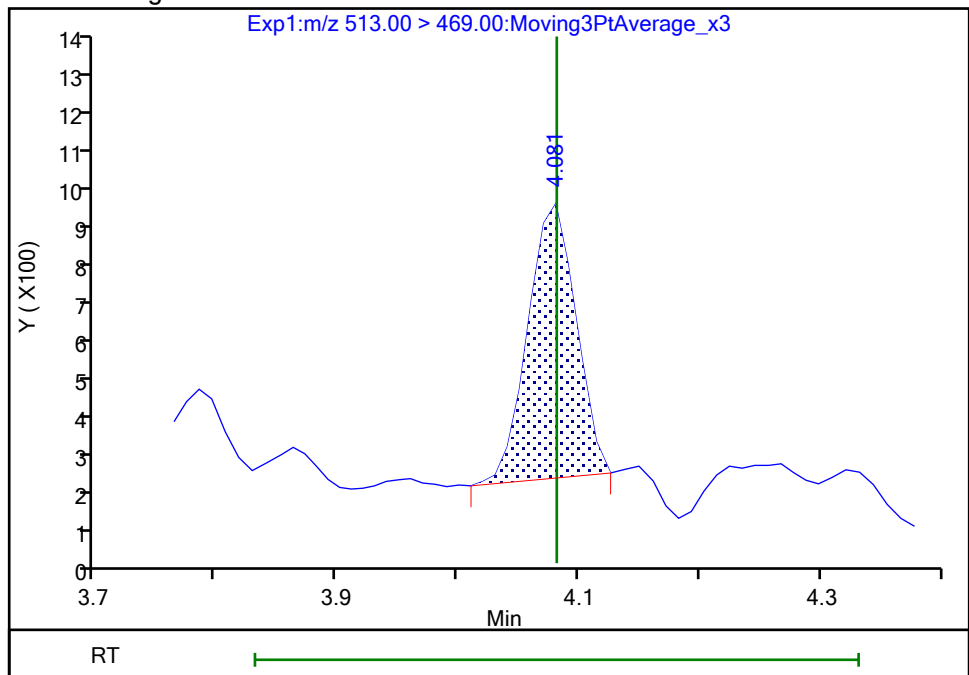
Not Detected
Expected RT: 4.08

Processing Integration Results



Manual Integration Results

RT: 4.08
Area: 1891
Amount: 0.004096
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 09:55:26

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

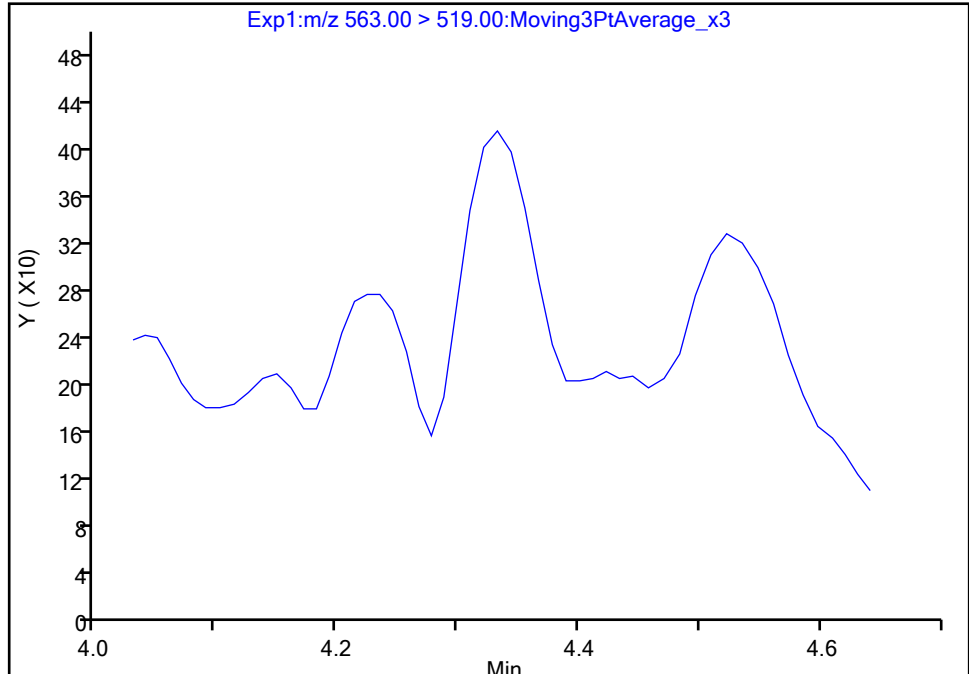
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A22.d
Injection Date: 27-Oct-2020 19:58:52 Instrument ID: LC812
Lims ID: 480-176996-C-3-A Lab Sample ID: 200-176996-3
Client ID: B1231-MW-03
Operator ID: lc812tech ALS Bottle#: 19 Worklist Smp#: 22
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

31 Perfluoroundecanoic acid, CAS: 2058-94-8

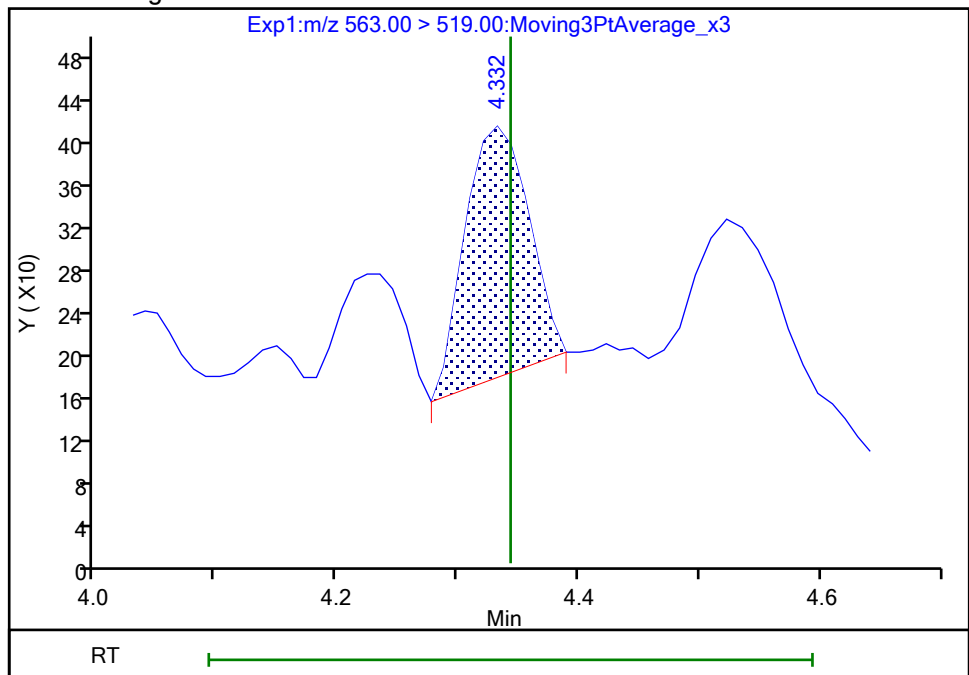
Signal: 1

Not Detected
Expected RT: 4.34

Processing Integration Results



Manual Integration Results



RT: 4.33
Area: 870
Amount: 0.002483
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:56:04

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

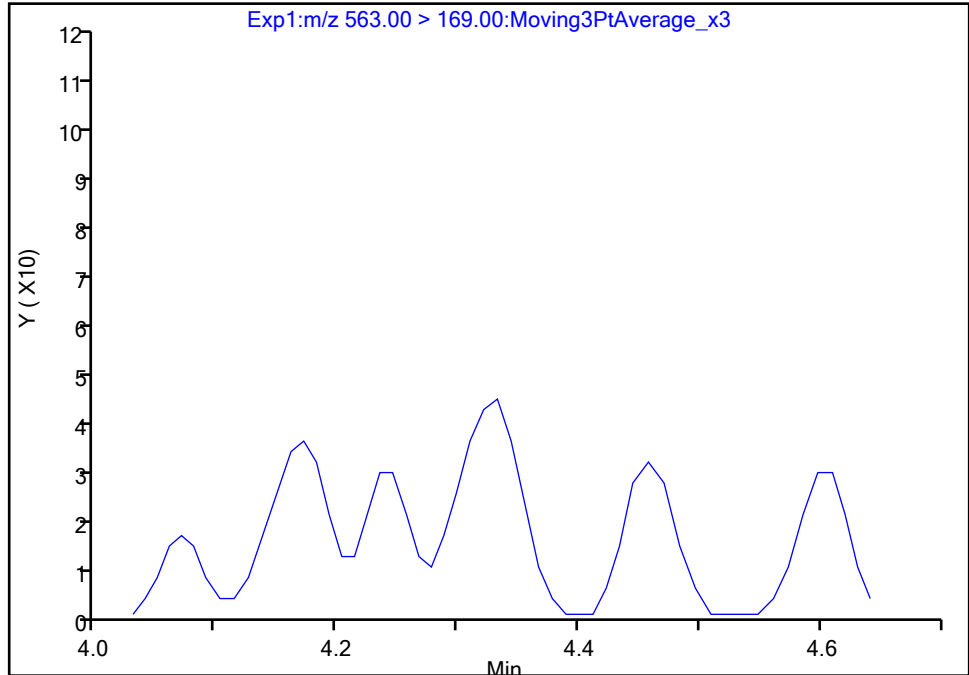
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Injection Date: 27-Oct-2020 19:58:52 Instrument ID: LC812
Lims ID: 480-176996-C-3-A Lab Sample ID: 200-176996-3
Client ID: B1231-MW-03
Operator ID: lc812tech ALS Bottle#: 19 Worklist Smp#: 22
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

31 Perfluoroundecanoic acid, CAS: 2058-94-8

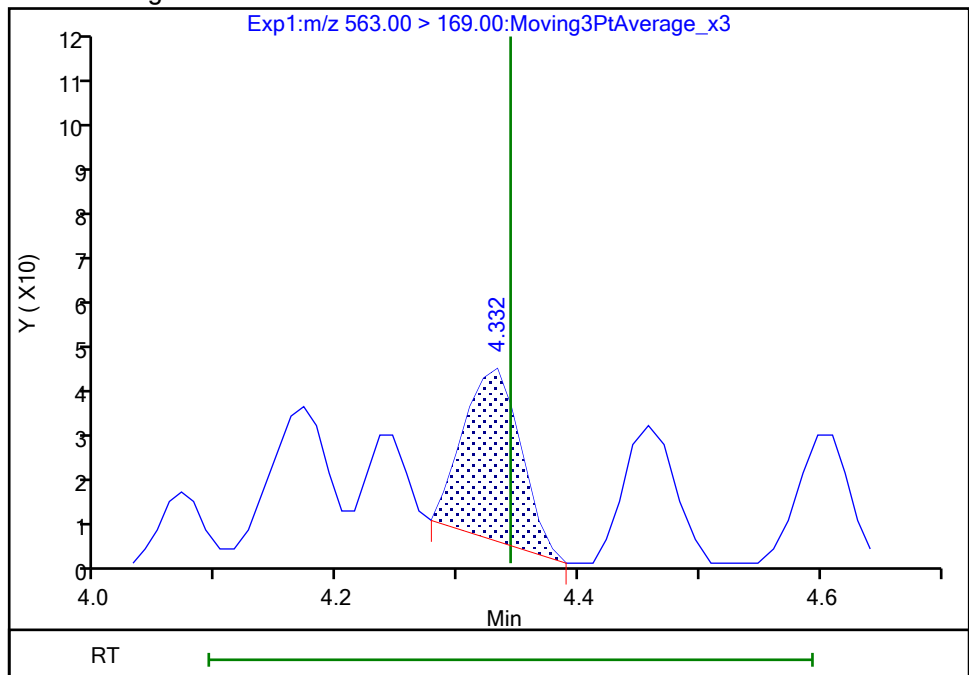
Signal: 2

Not Detected
Expected RT: 4.34

Processing Integration Results



Manual Integration Results



RT: 4.33
Area: 118
Amount: 0.002483
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:56:07

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

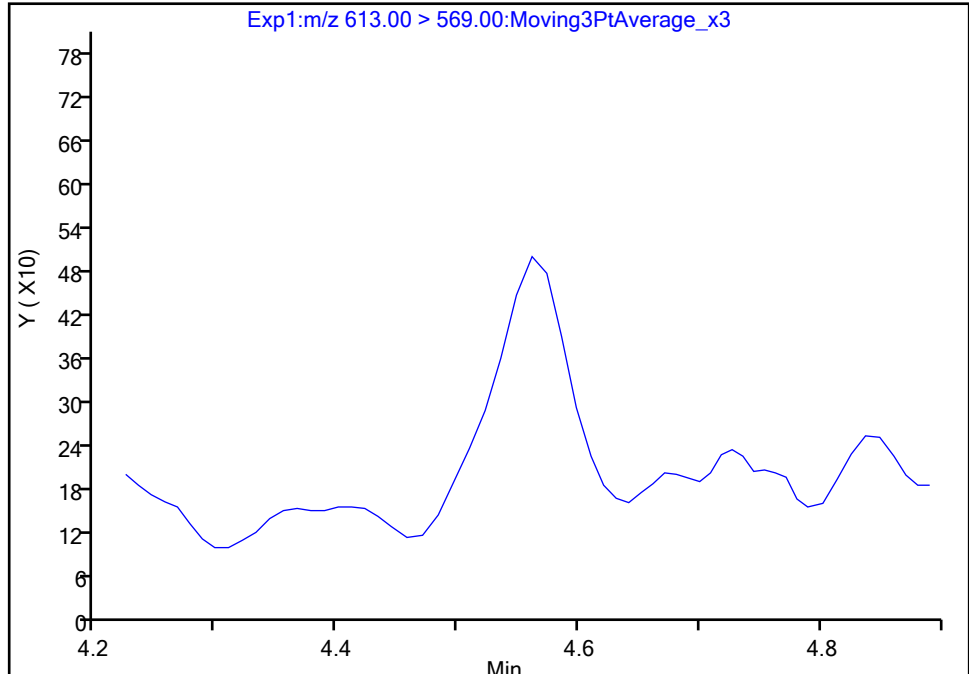
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A22.d				
Injection Date:	27-Oct-2020 19:58:52	Instrument ID:	LC812		
Lims ID:	480-176996-C-3-A	Lab Sample ID:	200-176996-3		
Client ID:	B1231-MW-03				
Operator ID:	lc812tech	ALS Bottle#:	19	Worklist Smp#:	22
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

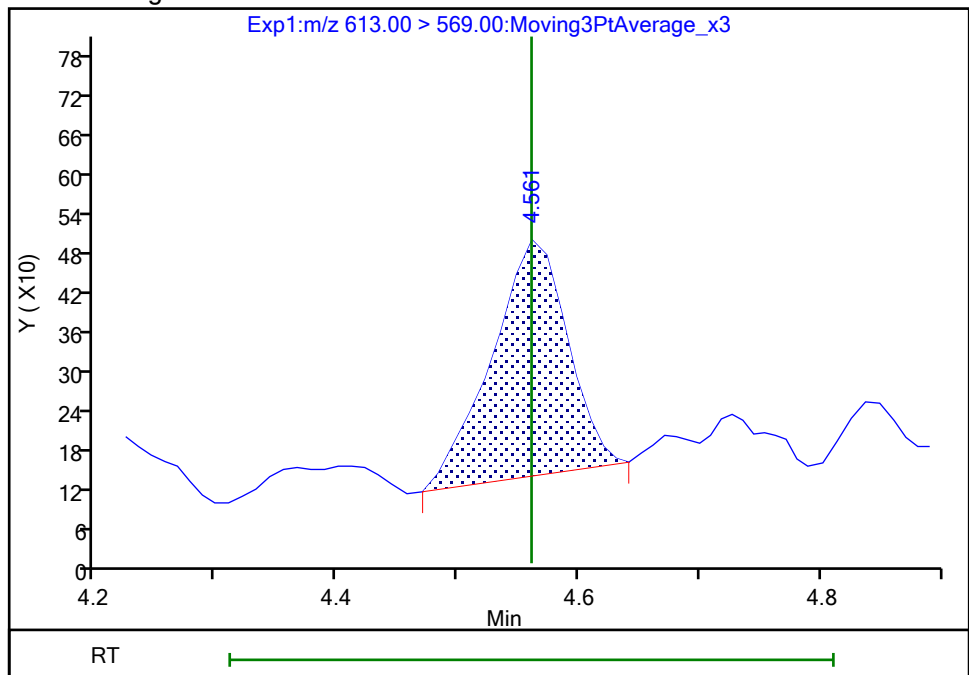
Not Detected
Expected RT: 4.56

Processing Integration Results



RT: 4.56
Area: 1569
Amount: 0.005032
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:56:18

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

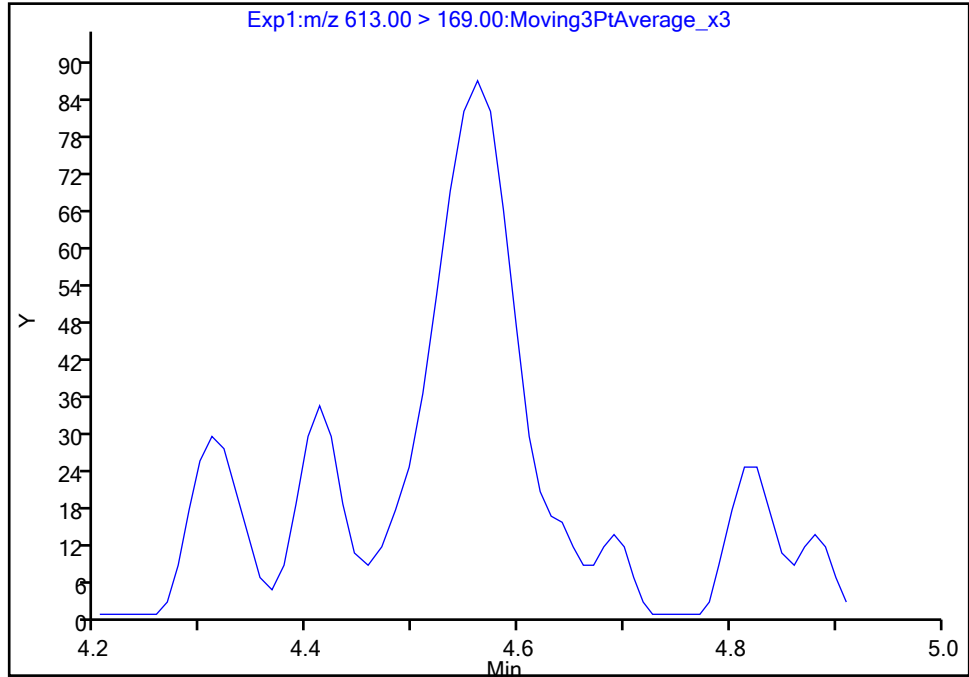
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A22.d
Injection Date: 27-Oct-2020 19:58:52 Instrument ID: LC812
Lims ID: 480-176996-C-3-A Lab Sample ID: 200-176996-3
Client ID: B1231-MW-03
Operator ID: lc812tech ALS Bottle#: 19 Worklist Smp#: 22
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

37 Perfluorododecanoic acid, CAS: 307-55-1

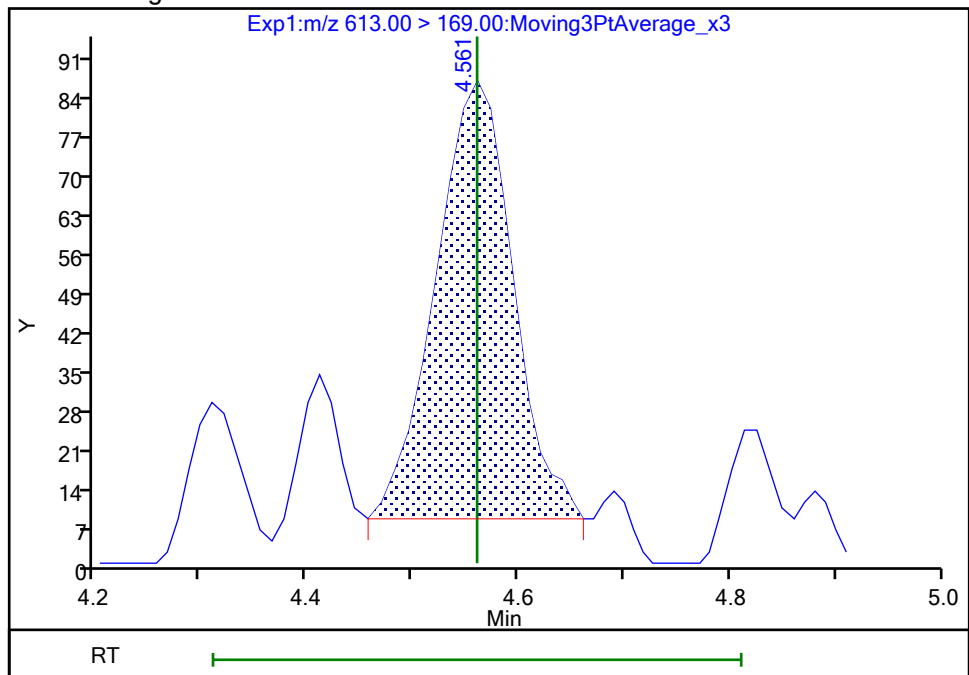
Signal: 2

Not Detected
Expected RT: 4.56

Processing Integration Results



Manual Integration Results



RT: 4.56
Area: 400
Amount: 0.005032
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:56:24

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 279 of 906

Eurofins TestAmerica, Burlington

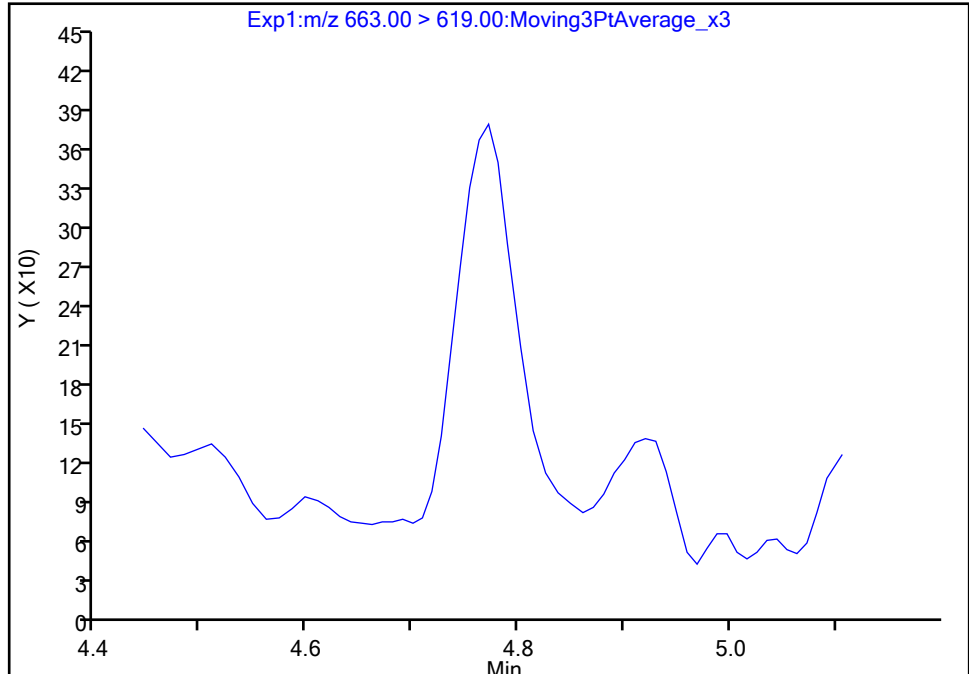
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A22.d				
Injection Date:	27-Oct-2020 19:58:52	Instrument ID:	LC812		
Lims ID:	480-176996-C-3-A	Lab Sample ID:	200-176996-3		
Client ID:	B1231-MW-03				
Operator ID:	lc812tech	ALS Bottle#:	19	Worklist Smp#:	22
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

41 Perfluorotridecanoic acid, CAS: 72629-94-8

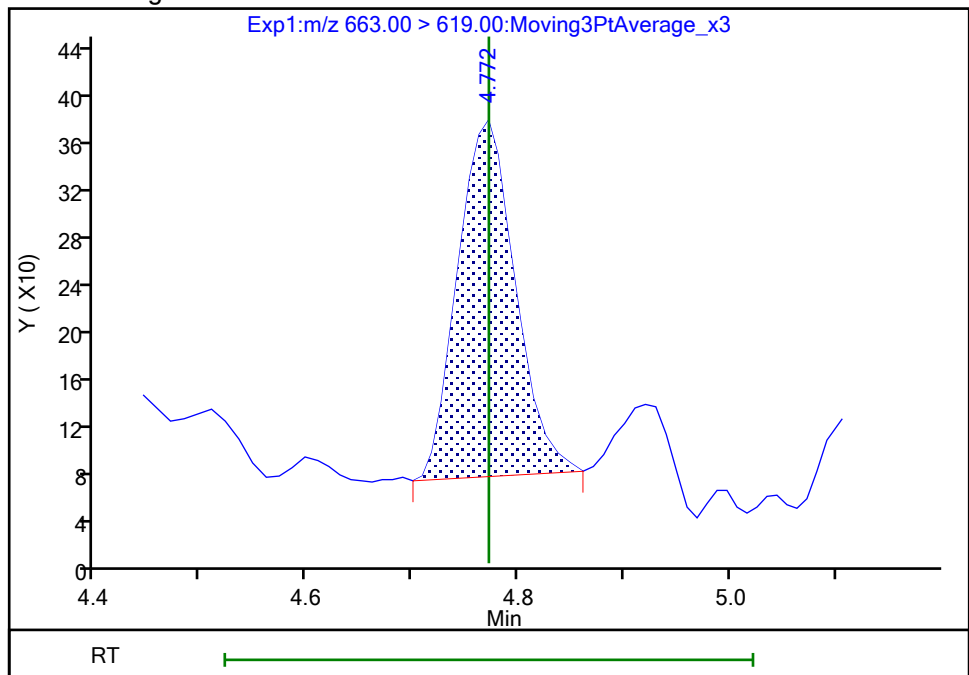
Signal: 1

Not Detected
Expected RT: 4.77

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:56:34

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

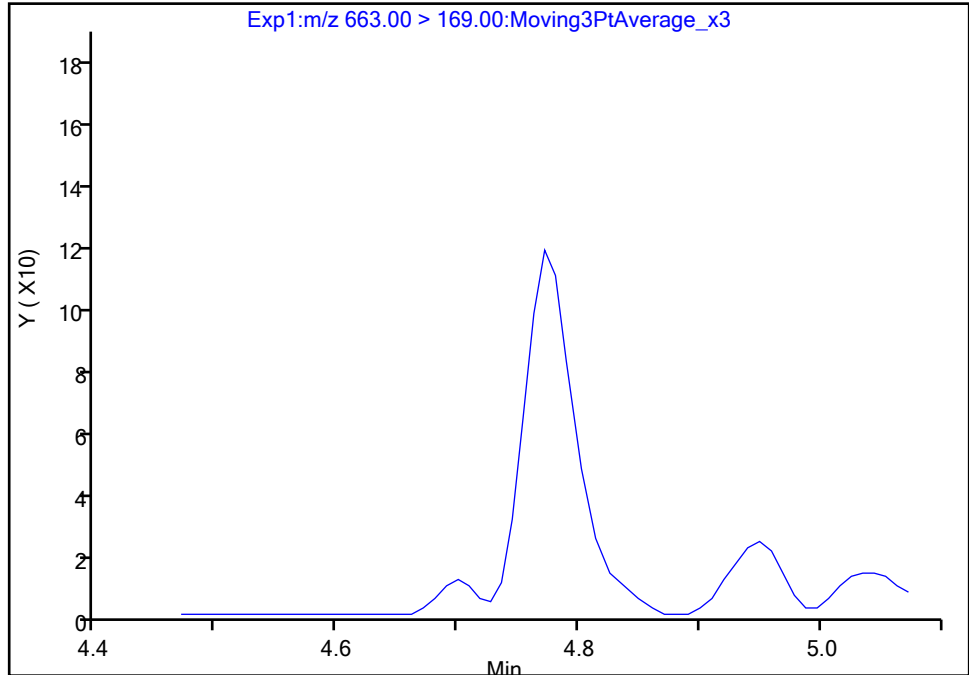
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A22.d
Injection Date: 27-Oct-2020 19:58:52 Instrument ID: LC812
Lims ID: 480-176996-C-3-A Lab Sample ID: 200-176996-3
Client ID: B1231-MW-03
Operator ID: lc812tech ALS Bottle#: 19 Worklist Smp#: 22
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

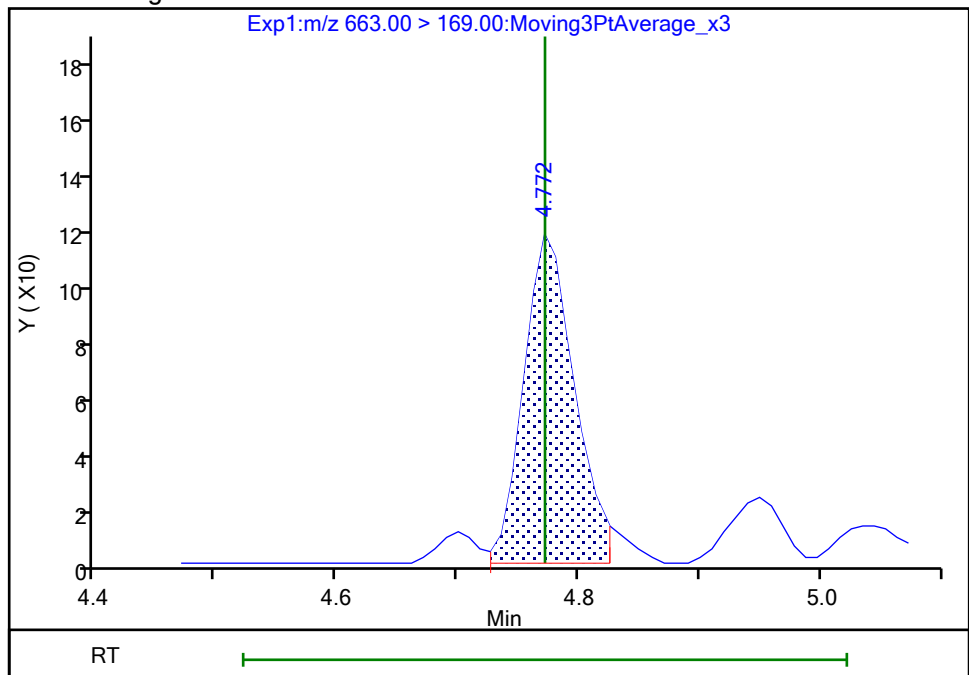
Not Detected
Expected RT: 4.77

Processing Integration Results



Manual Integration Results

RT: 4.77
Area: 332
Amount: 0.004249
Amount Units: ng/ml



Reviewer: chirgwinb, 28-Oct-2020 13:00:55

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

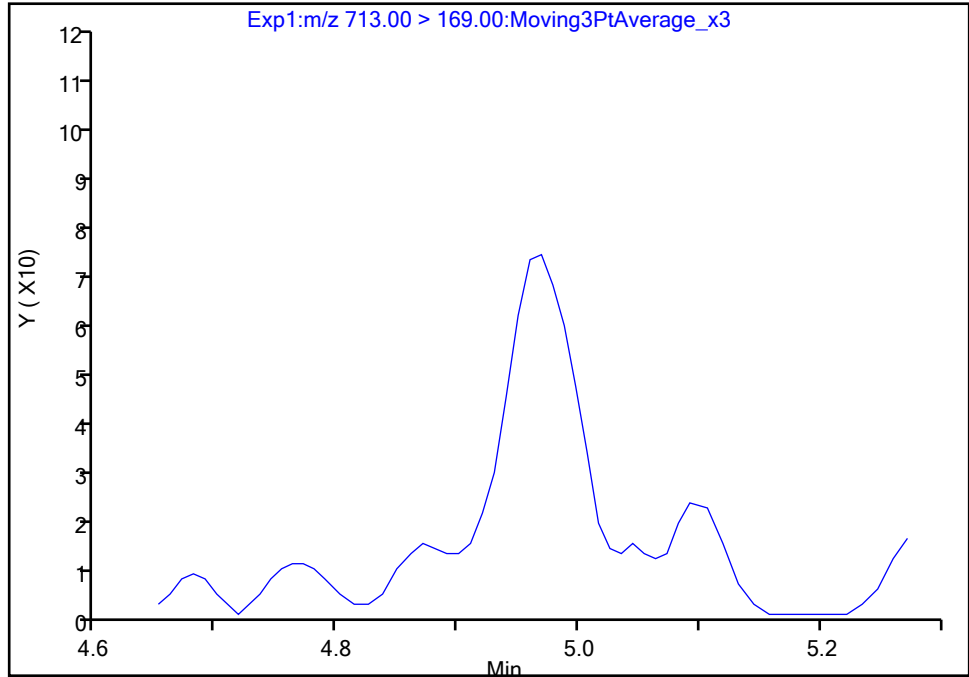
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A22.d
Injection Date: 27-Oct-2020 19:58:52 Instrument ID: LC812
Lims ID: 480-176996-C-3-A Lab Sample ID: 200-176996-3
Client ID: B1231-MW-03
Operator ID: lc812tech ALS Bottle#: 19 Worklist Smp#: 22
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

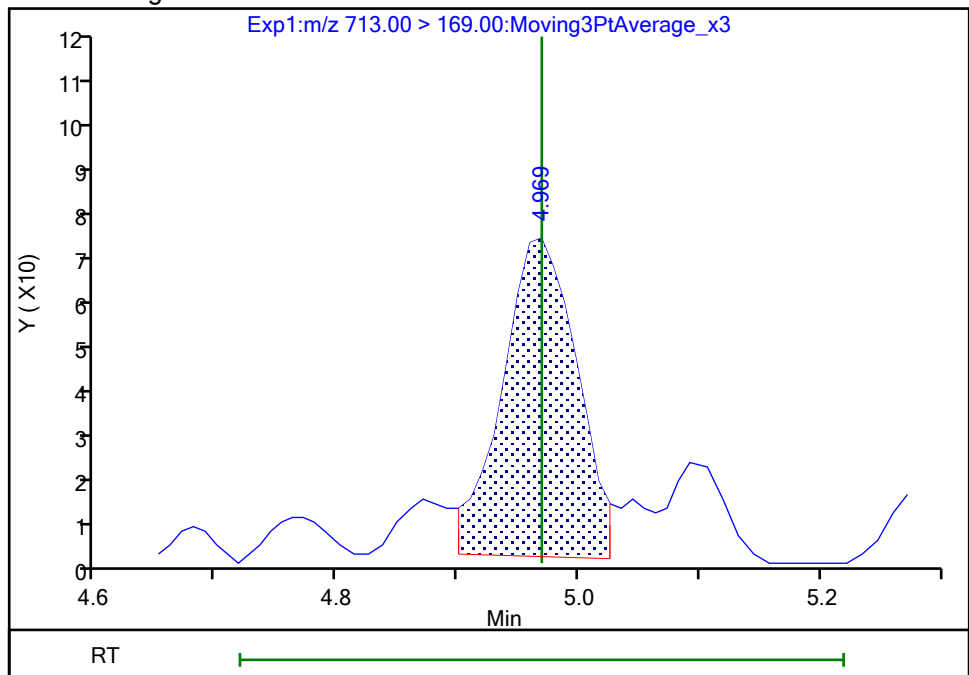
Not Detected
Expected RT: 4.97

Processing Integration Results



RT: 4.97
Area: 296
Amount: 0.005651
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 13:01:15
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 282 of 906

Eurofins TestAmerica, Burlington

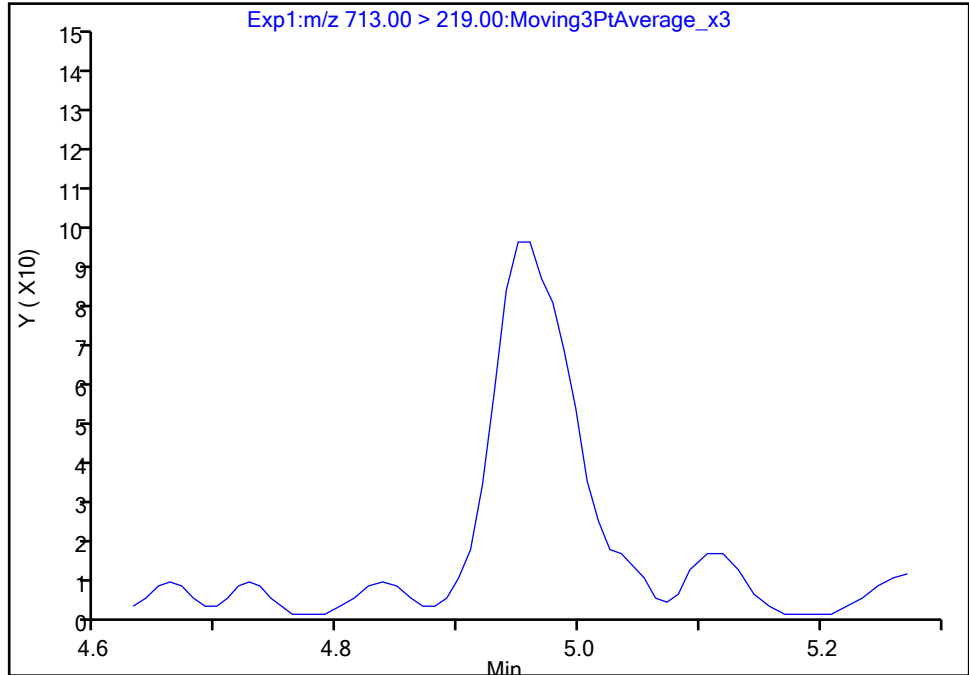
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A22.d
Injection Date: 27-Oct-2020 19:58:52 Instrument ID: LC812
Lims ID: 480-176996-C-3-A Lab Sample ID: 200-176996-3
Client ID: B1231-MW-03
Operator ID: lc812tech ALS Bottle#: 19 Worklist Smp#: 22
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

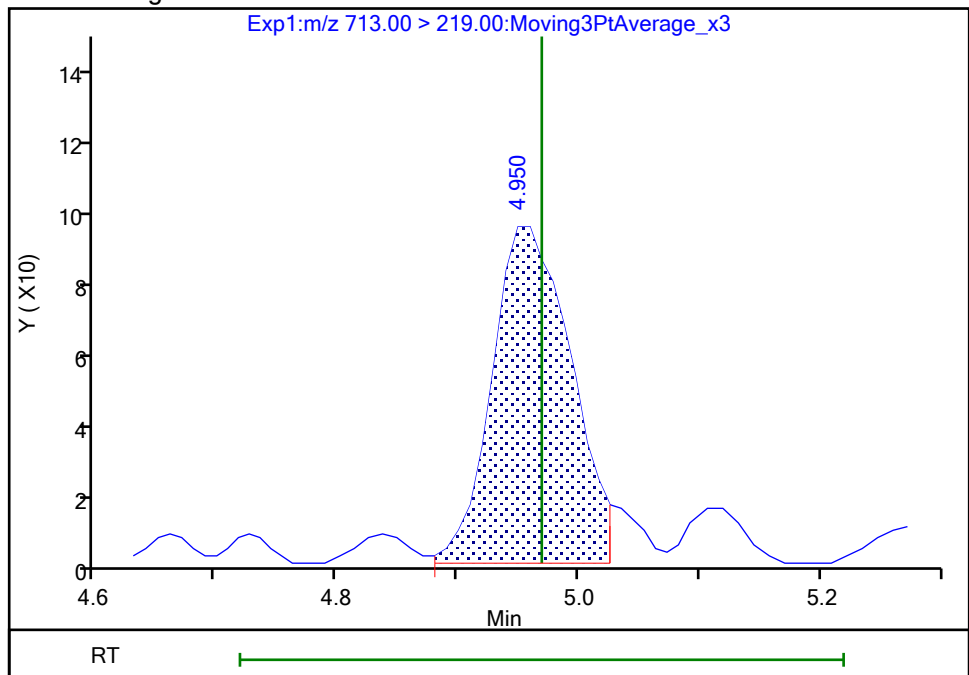
Not Detected
Expected RT: 4.97

Processing Integration Results



Manual Integration Results

RT: 4.95
Area: 417
Amount: 0.005651
Amount Units: ng/ml



Reviewer: chirgwinb, 28-Oct-2020 13:01:20

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 283 of 906

Eurofins TestAmerica, Burlington

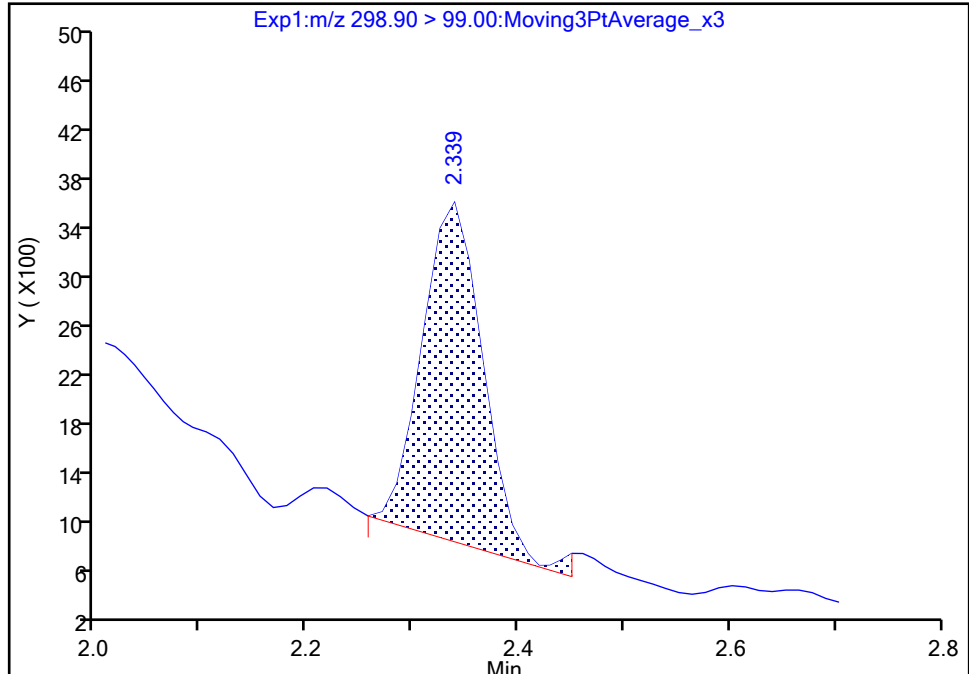
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A22.d
Injection Date: 27-Oct-2020 19:58:52 Instrument ID: LC812
Lims ID: 480-176996-C-3-A Lab Sample ID: 200-176996-3
Client ID: B1231-MW-03
Operator ID: lc812tech ALS Bottle#: 19 Worklist Smp#: 22
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

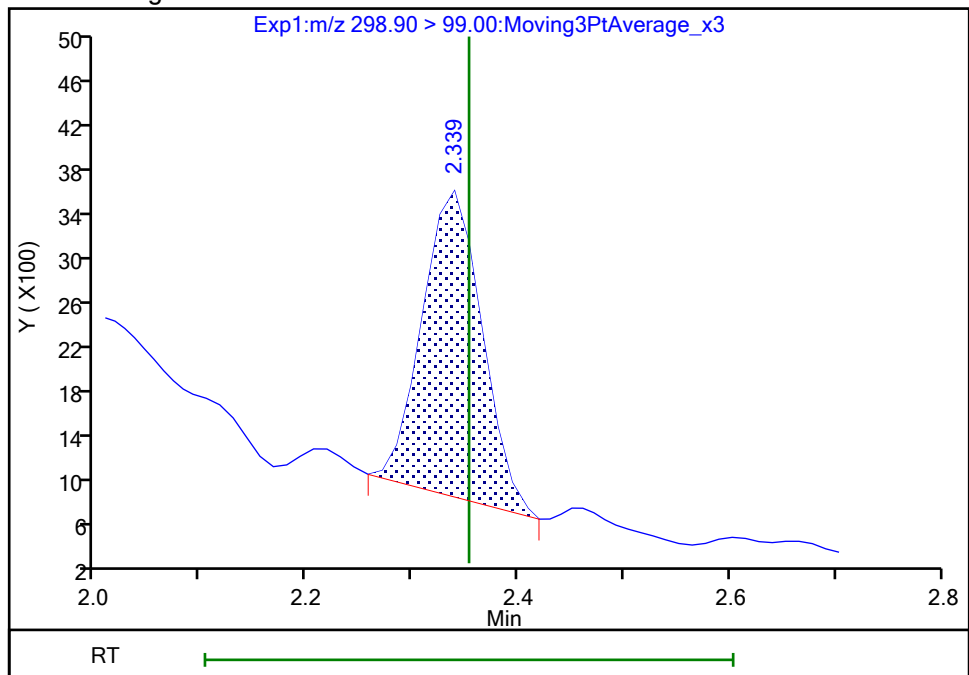
RT: 2.34
Area: 11119
Amount: 0.026982
Amount Units: ng/ml

Processing Integration Results



RT: 2.34
Area: 10913
Amount: 0.026982
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:52:51

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

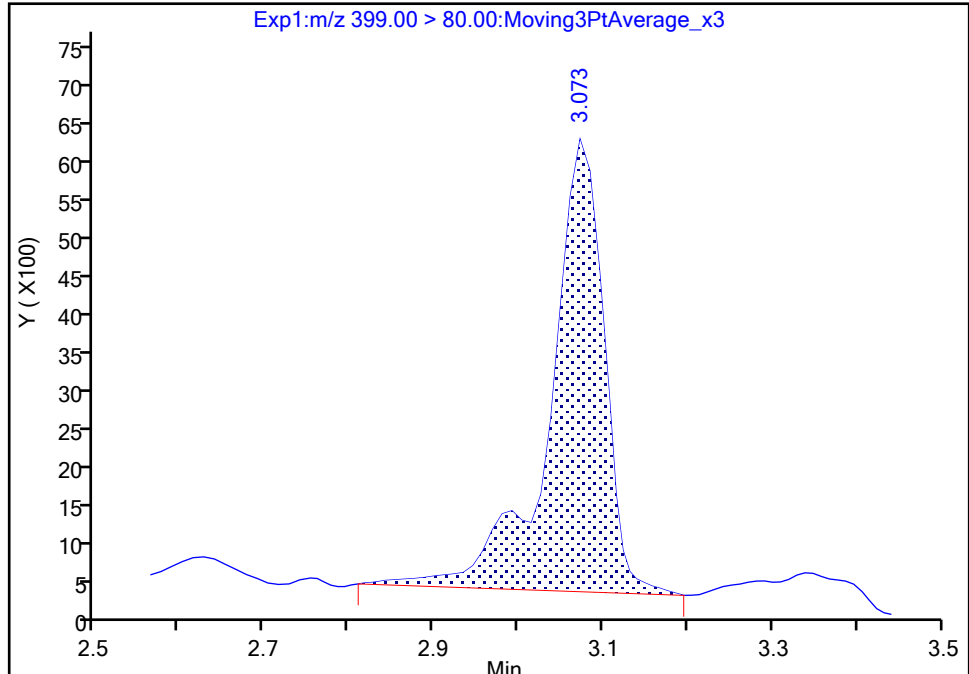
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A22.d
Injection Date: 27-Oct-2020 19:58:52 Instrument ID: LC812
Lims ID: 480-176996-C-3-A Lab Sample ID: 200-176996-3
Client ID: B1231-MW-03
Operator ID: lc812tech ALS Bottle#: 19 Worklist Smp#: 22
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

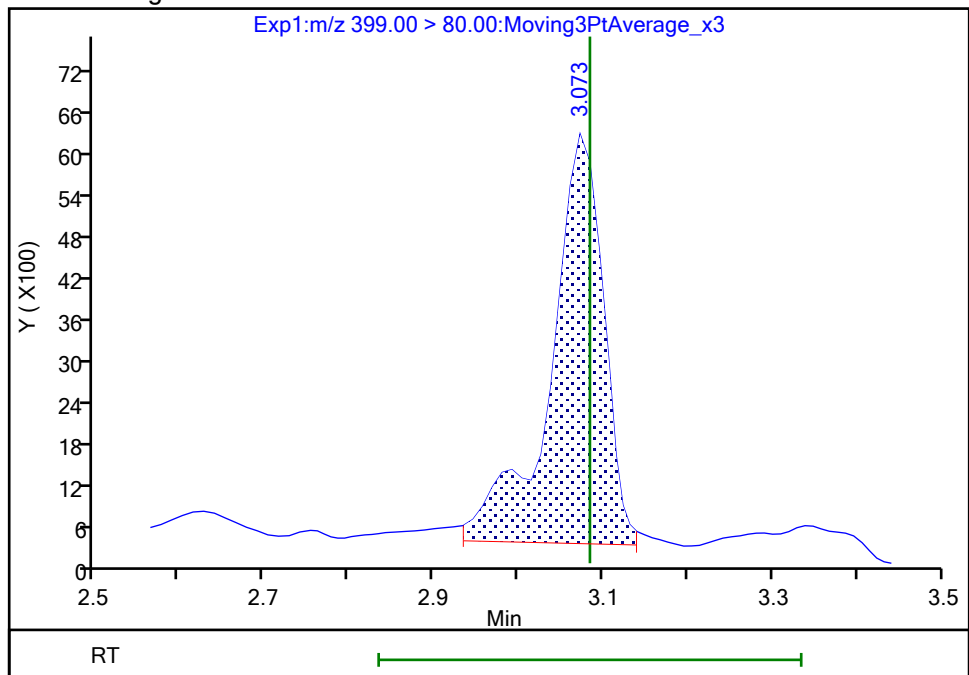
RT: 3.07
Area: 26875
Amount: 0.042284
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 26074
Amount: 0.041024
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:53:26

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

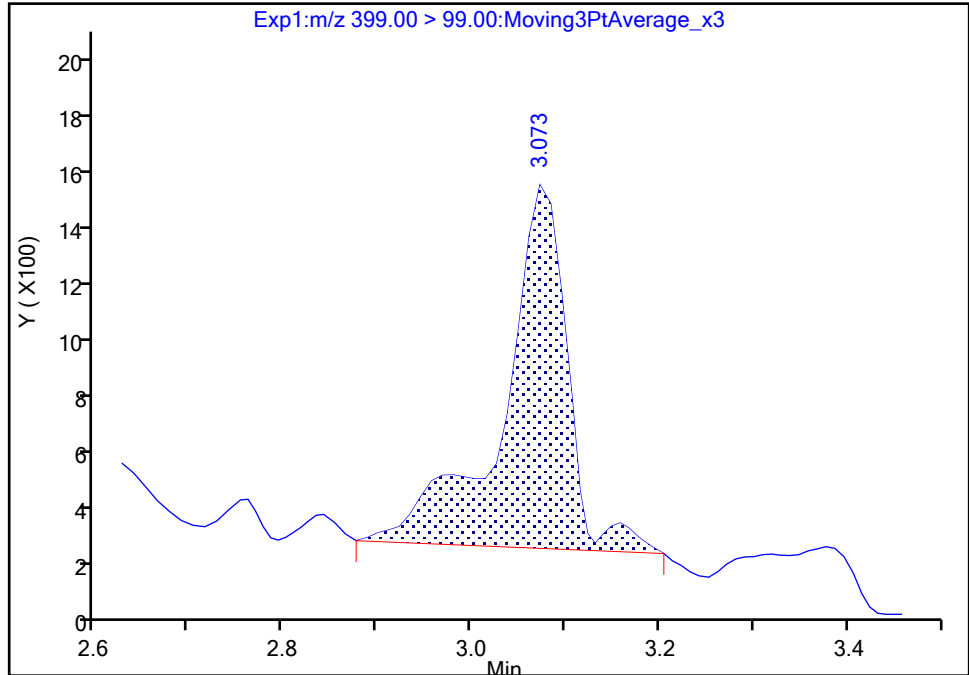
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A22.d
Injection Date: 27-Oct-2020 19:58:52 Instrument ID: LC812
Lims ID: 480-176996-C-3-A Lab Sample ID: 200-176996-3
Client ID: B1231-MW-03
Operator ID: lc812tech ALS Bottle#: 19 Worklist Smp#: 22
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

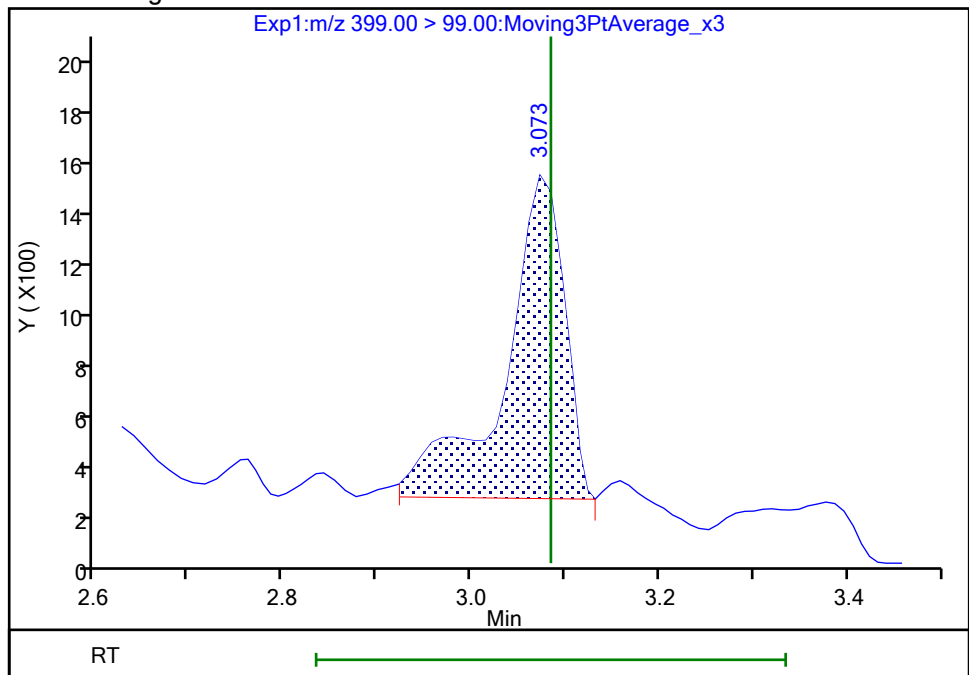
RT: 3.07
Area: 6082
Amount: 0.042284
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 5569
Amount: 0.041024
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:53:38

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

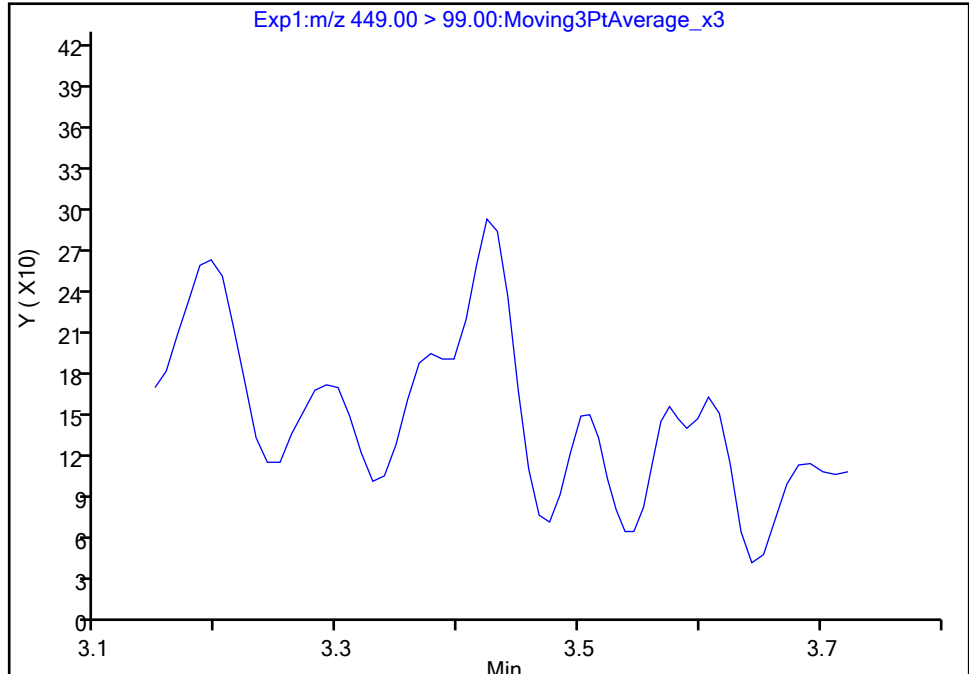
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A22.d				
Injection Date:	27-Oct-2020 19:58:52	Instrument ID:	LC812		
Lims ID:	480-176996-C-3-A	Lab Sample ID:	200-176996-3		
Client ID:	B1231-MW-03				
Operator ID:	lc812tech	ALS Bottle#:	19	Worklist Smp#:	22
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

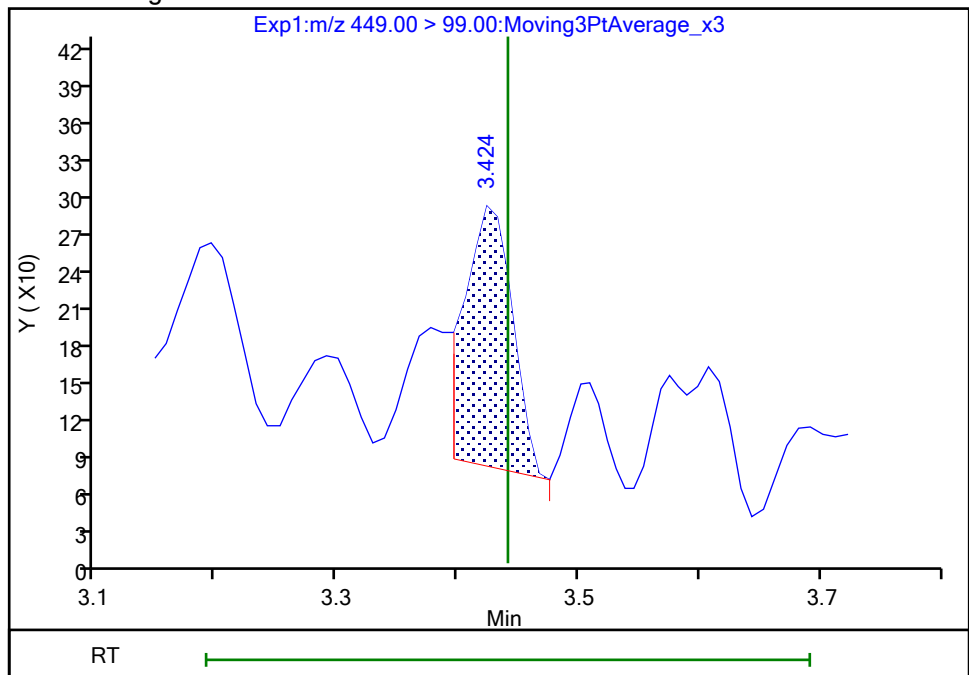
Signal: 2

Not Detected
Expected RT: 3.44

Processing Integration Results



Manual Integration Results

RT: 3.42
Area: 562
Amount: 0.003758
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:54:08

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

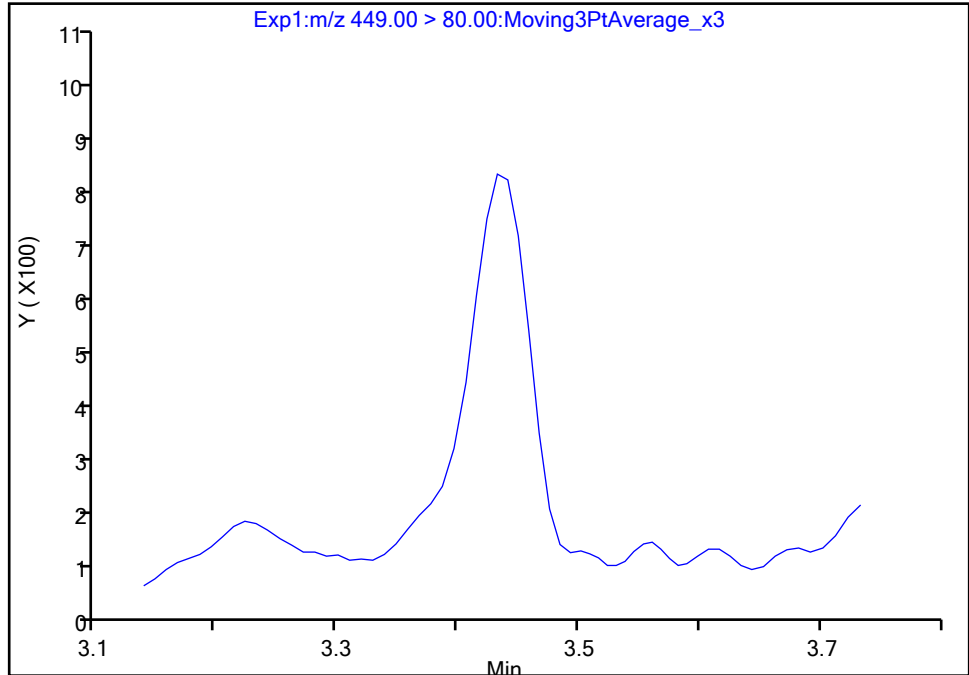
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A22.d
Injection Date: 27-Oct-2020 19:58:52 Instrument ID: LC812
Lims ID: 480-176996-C-3-A Lab Sample ID: 200-176996-3
Client ID: B1231-MW-03
Operator ID: lc812tech ALS Bottle#: 19 Worklist Smp#: 22
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

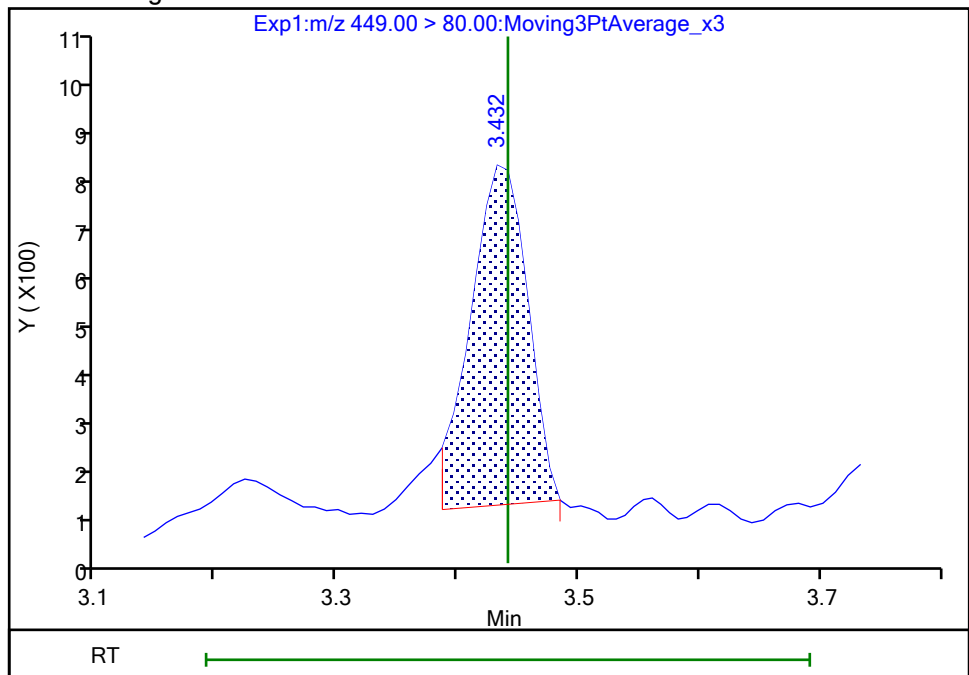
Signal: 1

Not Detected
Expected RT: 3.44

Processing Integration Results



Manual Integration Results



RT: 3.43
Area: 2102
Amount: 0.003758
Amount Units: ng/ml

Eurofins TestAmerica, Burlington

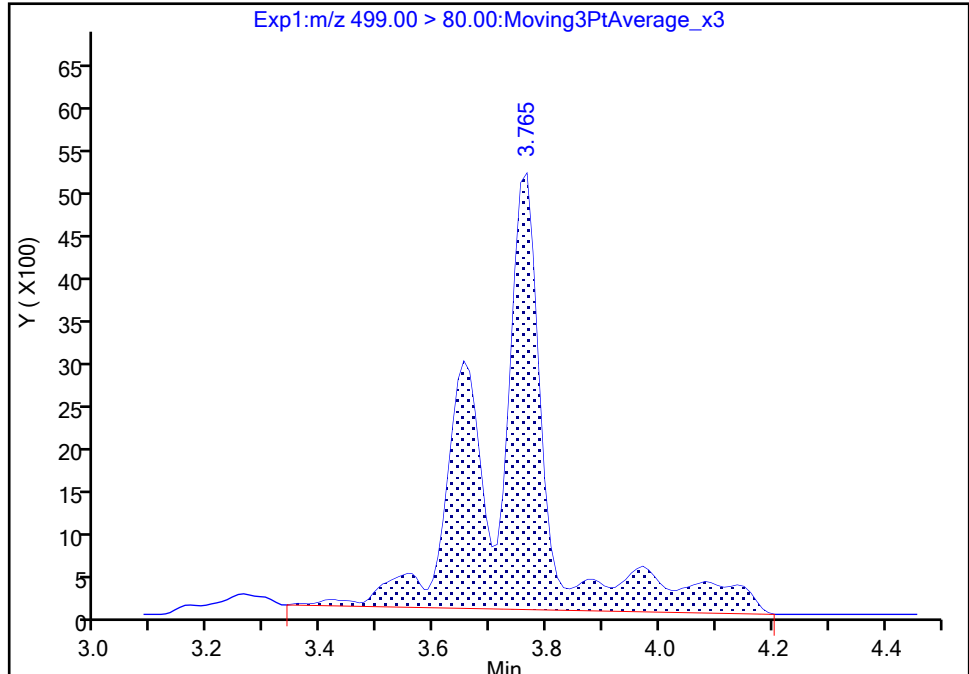
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A22.d				
Injection Date:	27-Oct-2020 19:58:52	Instrument ID:	LC812		
Lims ID:	480-176996-C-3-A	Lab Sample ID:	200-176996-3		
Client ID:	B1231-MW-03				
Operator ID:	lc812tech	ALS Bottle#:	19	Worklist Smp#:	22
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

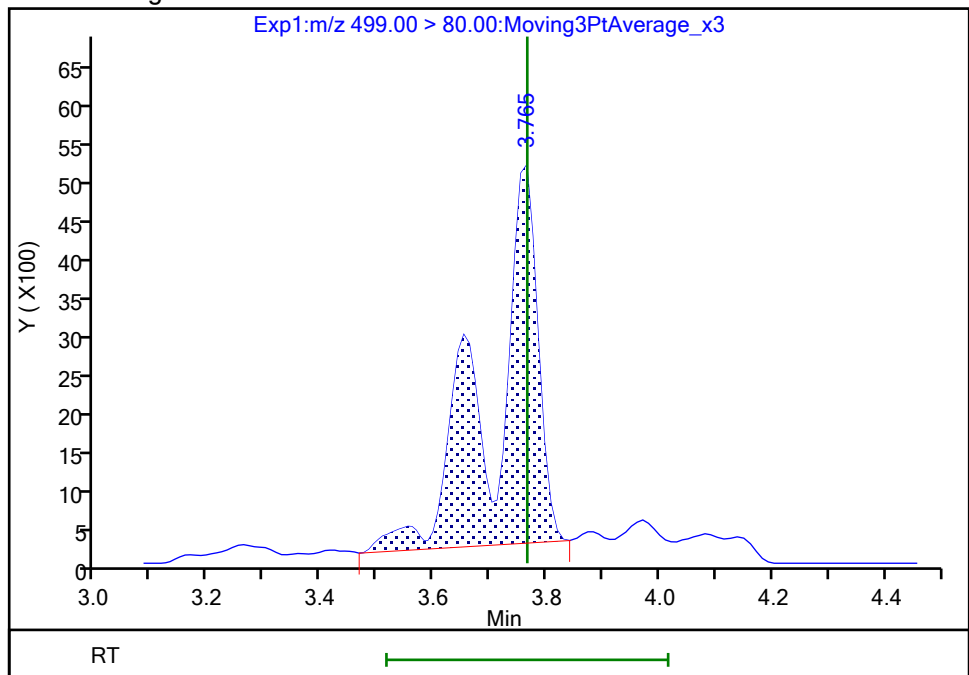
RT: 3.76
Area: 38176
Amount: 0.072767
Amount Units: ng/ml

Processing Integration Results



RT: 3.76
Area: 27991
Amount: 0.053353
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:54:42

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

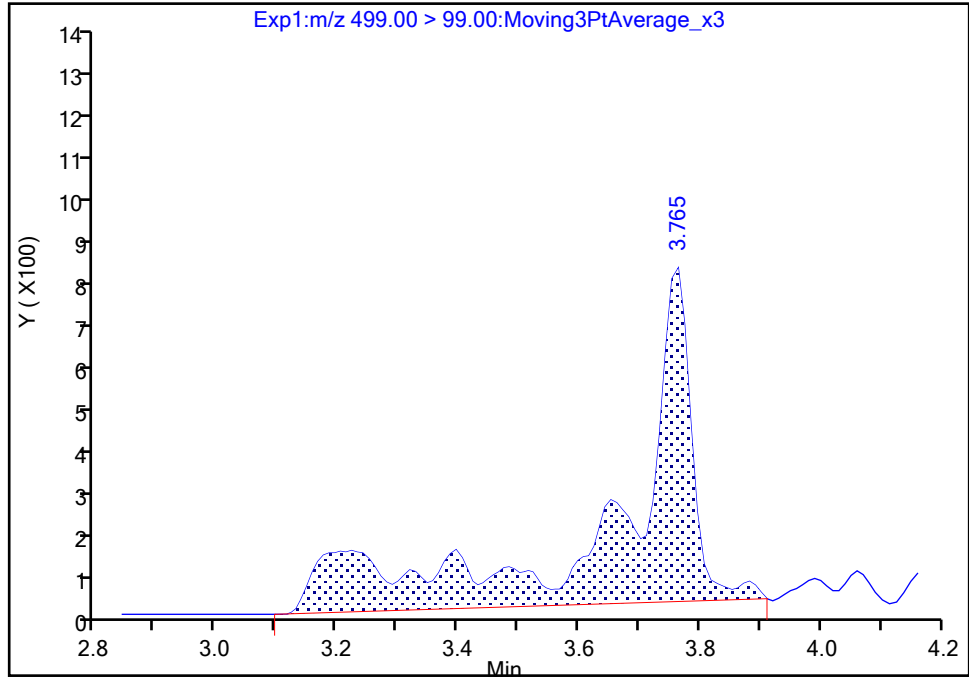
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A22.d
Injection Date: 27-Oct-2020 19:58:52 Instrument ID: LC812
Lims ID: 480-176996-C-3-A Lab Sample ID: 200-176996-3
Client ID: B1231-MW-03
Operator ID: lc812tech ALS Bottle#: 19 Worklist Smp#: 22
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

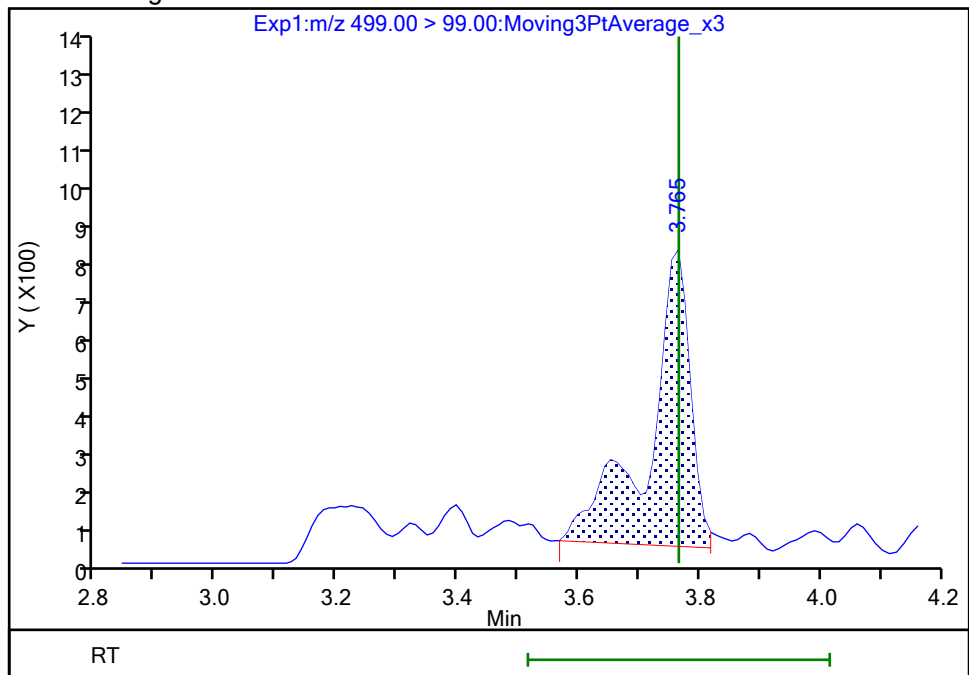
RT: 3.76
Area: 6576
Amount: 0.072767
Amount Units: ng/ml

Processing Integration Results



RT: 3.76
Area: 3690
Amount: 0.053353
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:54:53

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

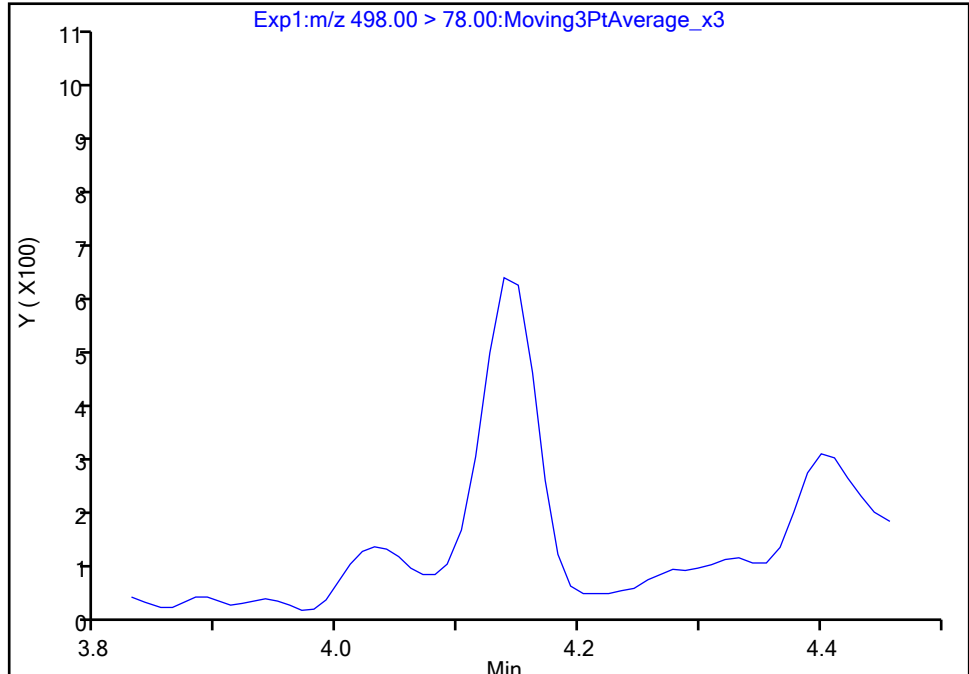
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A22.d				
Injection Date:	27-Oct-2020 19:58:52	Instrument ID:	LC812		
Lims ID:	480-176996-C-3-A	Lab Sample ID:	200-176996-3		
Client ID:	B1231-MW-03				
Operator ID:	lc812tech	ALS Bottle#:	19	Worklist Smp#:	22
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

22 Perfluorooctanesulfonamide, CAS: 754-91-6

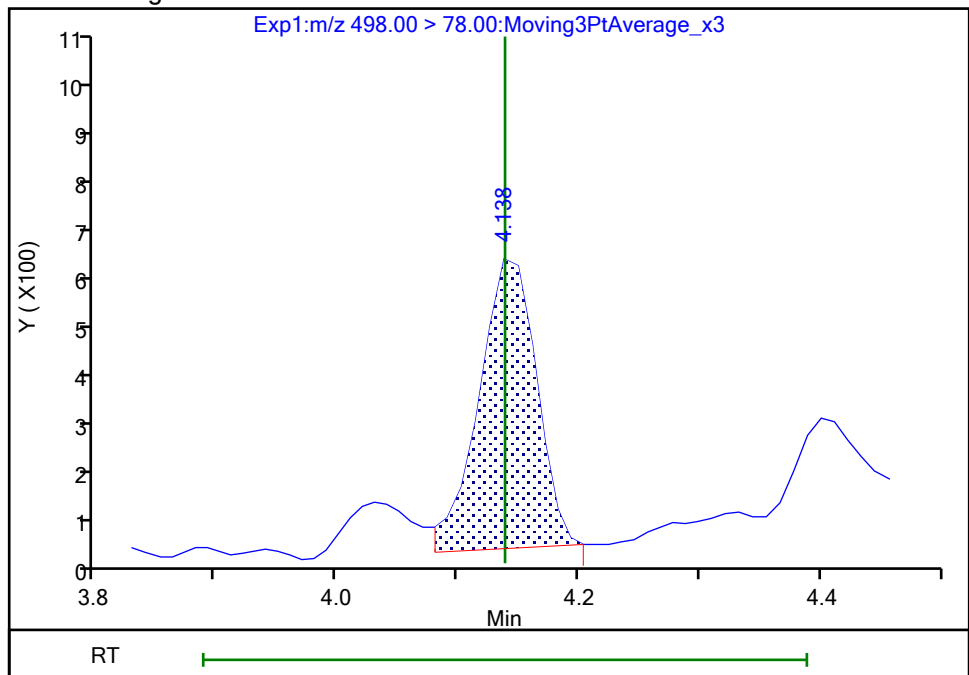
Signal: 1

Not Detected
Expected RT: 4.14

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:55:44

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

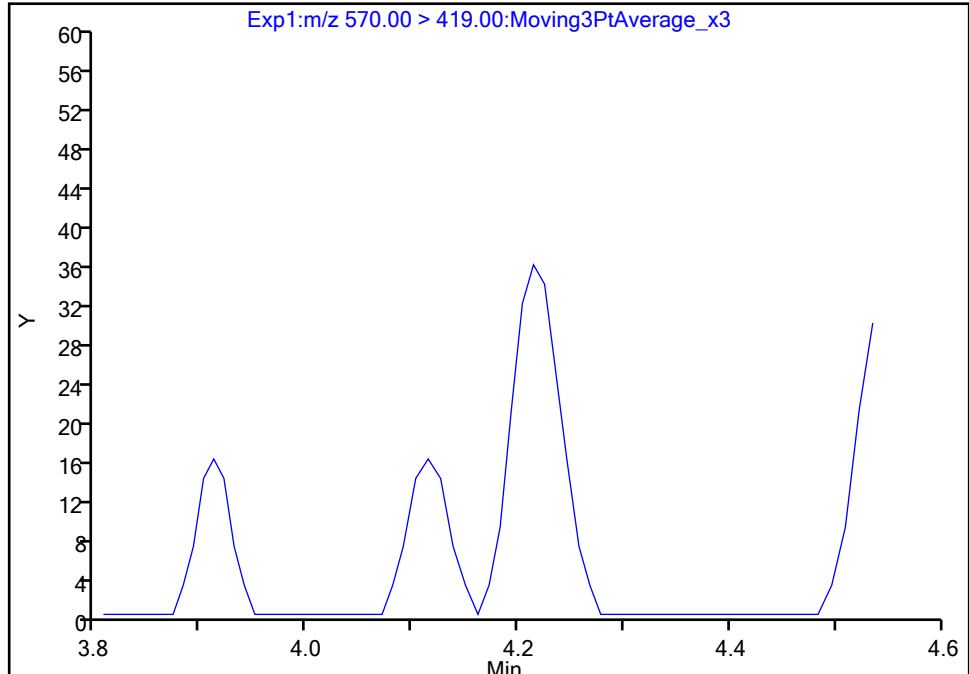
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A22.d				
Injection Date:	27-Oct-2020 19:58:52	Instrument ID:	LC812		
Lims ID:	480-176996-C-3-A	Lab Sample ID:	200-176996-3		
Client ID:	B1231-MW-03				
Operator ID:	lc812tech	ALS Bottle#:	19	Worklist Smp#:	22
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

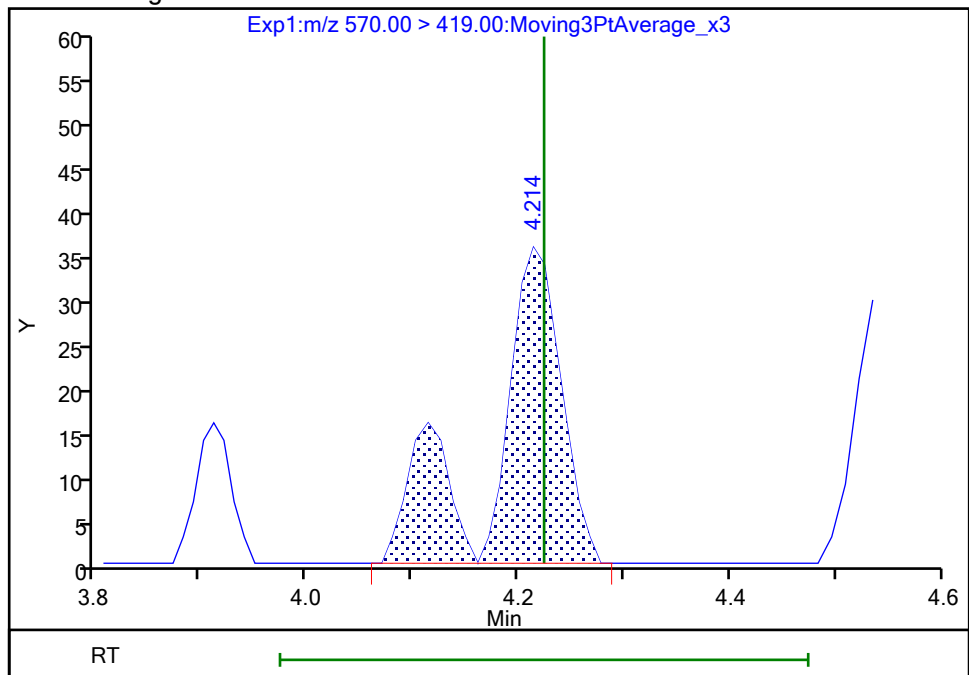
Signal: 1

Not Detected
Expected RT: 4.22

Processing Integration Results



Manual Integration Results

RT: 4.21
Area: 162
Amount: 0.007131
Amount Units: ng/mlReviewer: chirgwinb, 28-Oct-2020 13:00:26
Audit Action: Manually IntegratedAudit Reason: Incomplete Integration
Page 292 of 906

Eurofins TestAmerica, Burlington

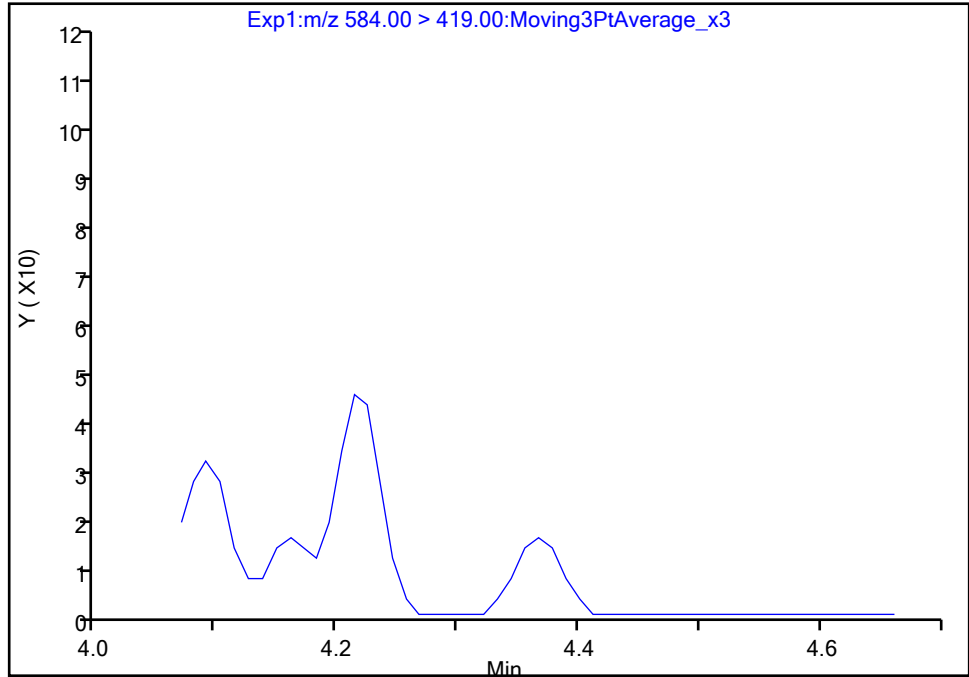
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A22.d
Injection Date: 27-Oct-2020 19:58:52 Instrument ID: LC812
Lims ID: 480-176996-C-3-A Lab Sample ID: 200-176996-3
Client ID: B1231-MW-03
Operator ID: lc812tech ALS Bottle#: 19 Worklist Smp#: 22
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

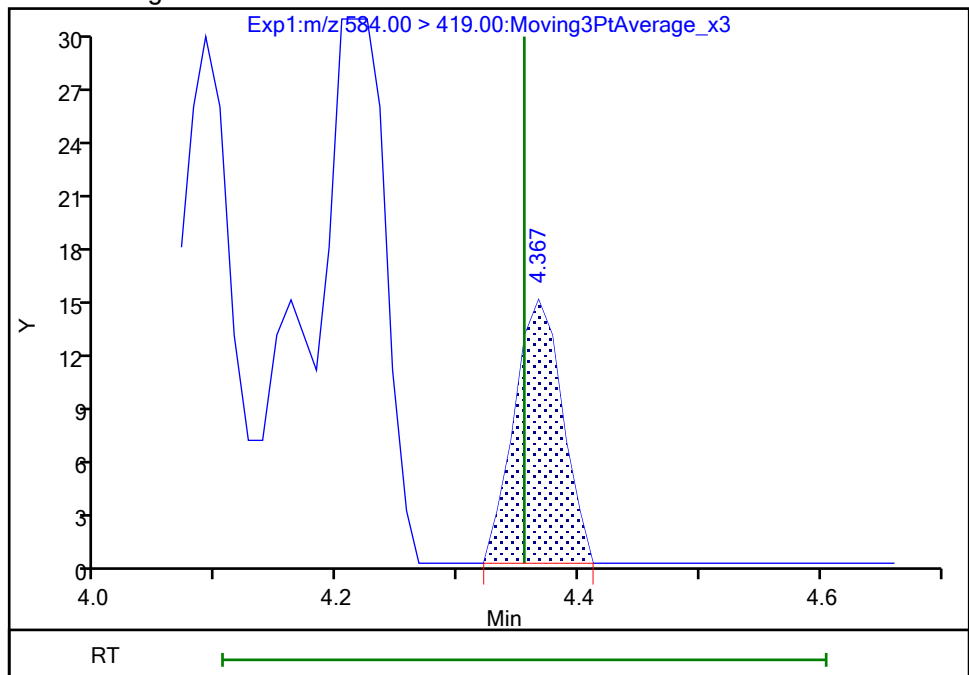
Not Detected
Expected RT: 4.35

Processing Integration Results



RT: 4.37
Area: 41
Amount: 0.001588
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:56:12

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

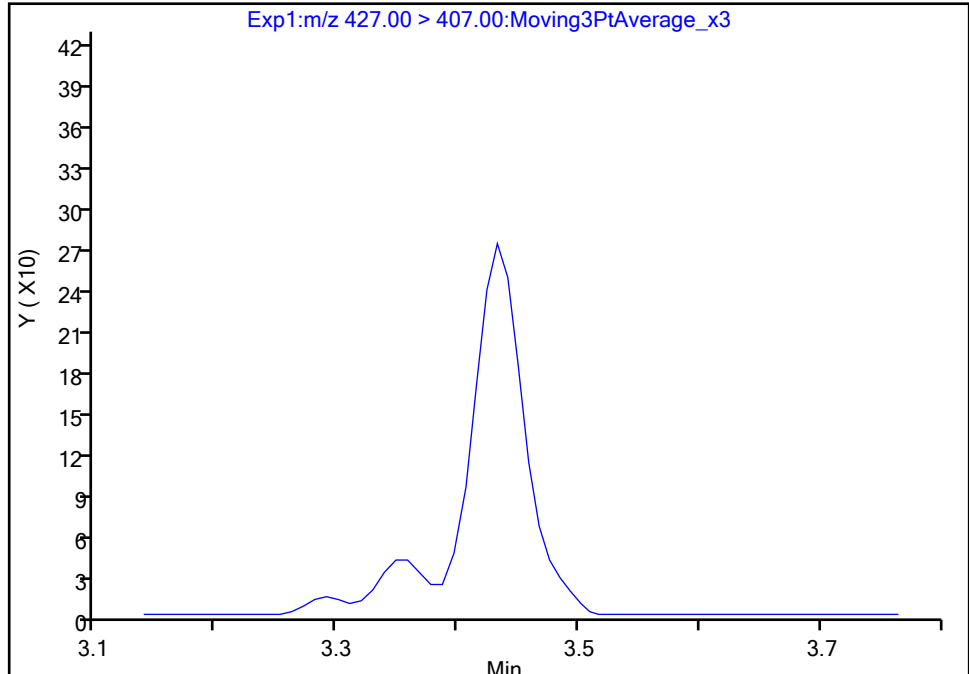
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A22.d				
Injection Date:	27-Oct-2020 19:58:52	Instrument ID:	LC812		
Lims ID:	480-176996-C-3-A	Lab Sample ID:	200-176996-3		
Client ID:	B1231-MW-03				
Operator ID:	lc812tech	ALS Bottle#:	19	Worklist Smp#:	22
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

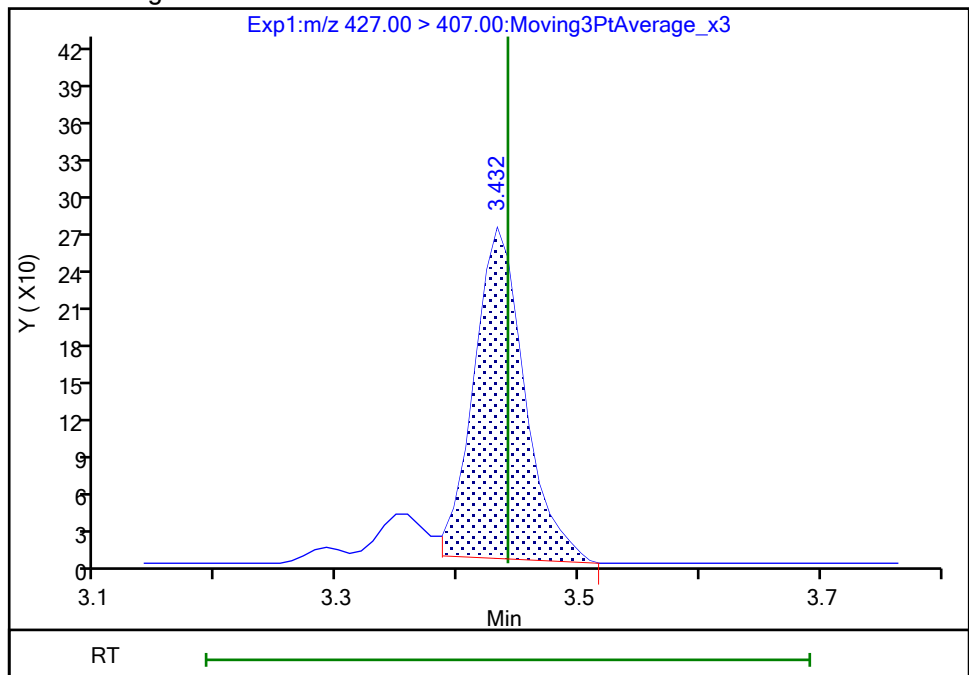
Signal: 1

Not Detected
Expected RT: 3.44

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:54:27

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

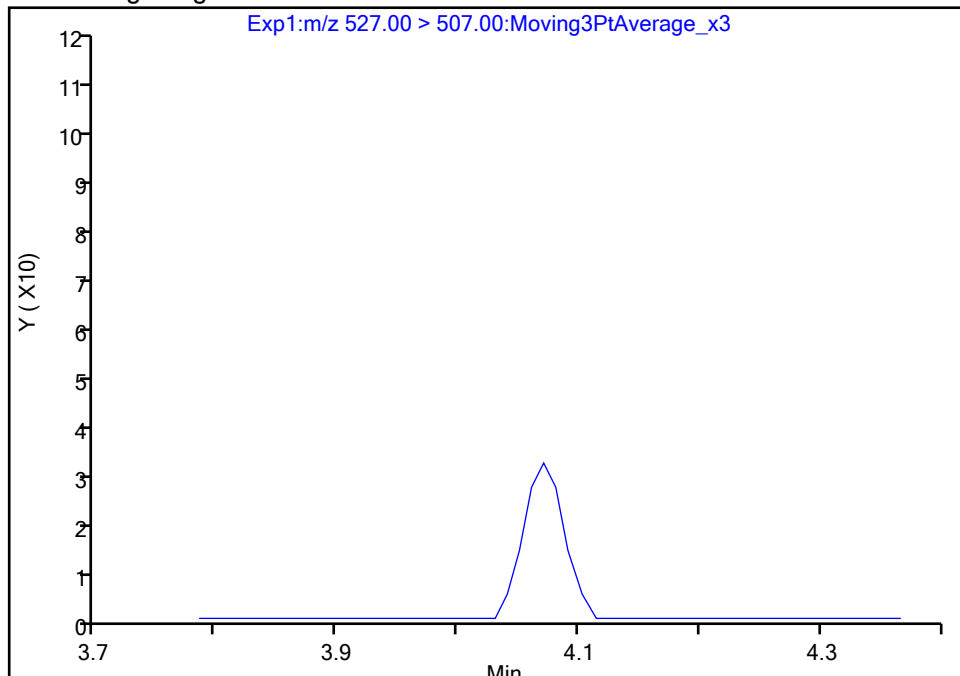
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A22.d
Injection Date: 27-Oct-2020 19:58:52 Instrument ID: LC812
Lims ID: 480-176996-C-3-A Lab Sample ID: 200-176996-3
Client ID: B1231-MW-03
Operator ID: lc812tech ALS Bottle#: 19 Worklist Smp#: 22
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

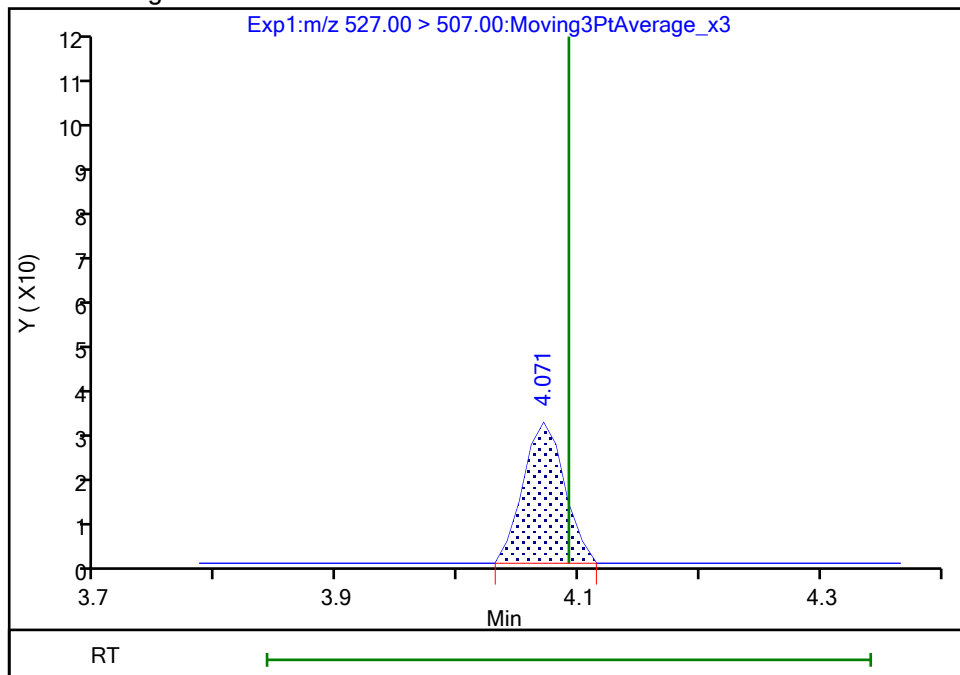
Not Detected
Expected RT: 4.09

Processing Integration Results



RT: 4.07
Area: 75
Amount: 0.002135
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:55:35

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

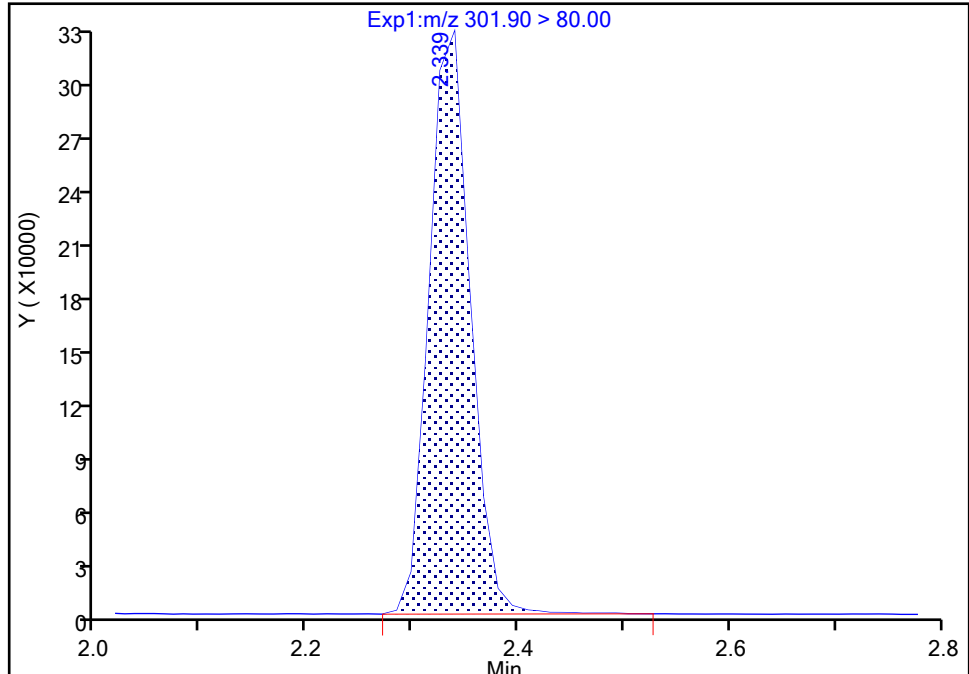
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A22.d
Injection Date: 27-Oct-2020 19:58:52 Instrument ID: LC812
Lims ID: 480-176996-C-3-A Lab Sample ID: 200-176996-3
Client ID: B1231-MW-03
Operator ID: lc812tech ALS Bottle#: 19 Worklist Smp#: 22
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

D 47 13C3 PFBS, CAS: STL02337

Signal: 1

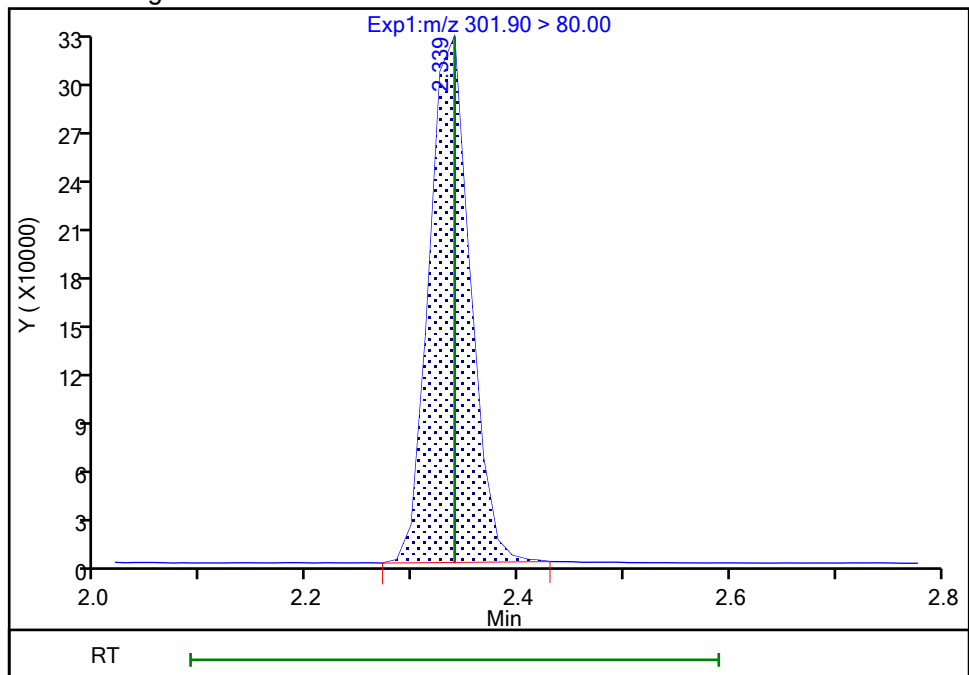
RT: 2.34
Area: 884778
Amount: 1.074613
Amount Units: ng/ml

Processing Integration Results



RT: 2.34
Area: 878911
Amount: 1.067487
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:51:48

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1

SDG No.: _____

Client Sample ID: B1243-W05 Lab Sample ID: 480-176996-4

Matrix: Water Lab File ID: PA201027A23.d

Analysis Method: 537 (modified) Date Collected: 10/21/2020 11:40

Extraction Method: 3535 Date Extracted: 10/27/2020 09:15

Sample wt/vol: 296.3 (mL) Date Analyzed: 10/27/2020 20:07

Con. Extract Vol.: 10 (mL) Dilution Factor: 1

Injection Volume: 20 (uL) GC Column: C-18 ID: 4.6 (mm)

% Moisture: _____ GPC Cleanup: (Y/N) N

Analysis Batch No.: 160481 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	2.0	J	4.2	0.95
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		1.7	0.91
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		1.7	0.70
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.44	J	1.7	0.39
335-67-1	Perfluorooctanoic acid (PFOA)	4.2		1.7	0.83
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.7	0.49
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.7	0.39
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.62
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.7	0.39
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.36
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.50
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.53
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	5.0		1.7	0.57
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.33
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	11		1.7	0.73
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.40
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.48
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.2	0.67
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.2	0.78
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.2	0.61
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.56

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins TestAmerica, Burlington</u>	Job No.: <u>480-176996-1</u>
SDG No.: _____	
Client Sample ID: <u>B1243-W05</u>	Lab Sample ID: <u>480-176996-4</u>
Matrix: <u>Water</u>	Lab File ID: <u>PA201027A23.d</u>
Analysis Method: <u>537 (modified)</u>	Date Collected: <u>10/21/2020 11:40</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/27/2020 09:15</u>
Sample wt/vol: <u>296.3 (mL)</u>	Date Analyzed: <u>10/27/2020 20:07</u>
Con. Extract Vol.: <u>10 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>20 (uL)</u>	GC Column: <u>C-18</u> ID: <u>4.6 (mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>160481</u>	Units: <u>ng/L</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	96		50-150
STL01892	13C4 PFHpA	101		50-150
STL00990	13C4 PFOA	89		50-150
STL00991	13C4 PFOS	71		50-150
STL00995	13C5 PFNA	77		50-150
STL00992	13C4 PFBA	91		25-150
STL00993	13C2 PFHxA	97		50-150
STL00996	13C2 PFDA	55		50-150
STL00997	13C2 PFUnA	43	*5	50-150
STL00998	13C2 PFDoA	37	*5	50-150
STL01056	13C8 FOSA	64		25-150
STL01893	13C5 PFPeA	99		25-150
STL02116	13C2 PFTeDA	40	*5	50-150
STL02118	d3-NMeFOSAA	47	*5	50-150
STL02117	d5-NEtFOSAA	41	*5	50-150
STL02279	M2-6:2 FTS	100		25-150
STL02280	M2-8:2 FTS	58		25-150
STL02337	13C3 PFBS	93		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d
 Lims ID: 480-176996-C-4-A
 Client ID: B1243-W05
 Sample Type: Client
 Inject. Date: 27-Oct-2020 20:07:08 ALS Bottle#: 20 Worklist Smp#: 23
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: 480-176996-C-4-A
 Misc. Info.: 200-0043412-023 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Method: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 28-Oct-2020 13:19:45 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1652

First Level Reviewer: khanphomeea

Date: 28-Oct-2020 10:01:17

Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.981	1.981	0.0	0.576	846103	1.14		91.5	13498	
2 Perfluorobutanoic acid										M
212.90 > 169.00	1.981	1.990	-0.009	1.000	37124	0.0587			10.3	M
D 3 13C5 PFPeA										
267.90 > 223.00	2.312	2.326	-0.014	0.672	656721	1.24		99.0	2100	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.312	2.326	-0.014	1.000	4590	0.008273			0.2	M
D 47 13C3 PFBS										M
301.90 > 80.00	2.339	2.339	0.0	0.680	698295	1.08		93.0	63403	M
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.339	2.353	-0.014	1.000	8571	0.0143	Target=2.07		3.6	
298.90 > 99.00	2.339	2.353	-0.014	1.000	4021		2.13(1.04-3.11)		2.2	
D 7 13C2 PFHxA										
315.00 > 270.00	2.691	2.703	-0.012	0.782	663163	1.21		97.1	3146	
6 Perfluorohexanoic acid										RM
313.00 > 269.00	2.691	2.703	-0.012	1.000	7494	0.0140	Target=12.44		1.6	RM
313.00 > 119.00	2.691	2.703	-0.012	1.000	396		18.92(6.22-18.66)		1.2	M
D 11 18O2 PFHxS										
403.00 > 84.00	3.073	3.084	-0.011	0.893	526755	1.14		96.1	3793	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.073	3.084	-0.011	1.000	73000	0.1484	Target=4.60		101	M
399.00 > 99.00	3.073	3.084	-0.011	1.000	14460		5.05(2.30-6.91)		27.9	M
D 9 13C4 PFHpA										
367.00 > 322.00	3.073	3.084	-0.011	0.893	629748	1.27		101	3305	
10 Perfluoroheptanoic acid										M
363.00 > 319.00	3.084	3.084	0.0	1.004	6545	0.0130	Target=3.34		1.7	M
363.00 > 169.00	3.084	3.084	0.0	1.004	1966		3.33(1.67-5.01)		7.1	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
16 Perfluoroheptanesulfonic acid										M
449.00 > 80.00	3.432	3.441	-0.009	0.914	2321	0.007490	Target=7.08	8.3		M
449.00 > 99.00	3.441	3.441	0.0	0.916	447		5.19(3.54-10.63)	2.6		M
D 12 M2-6:2 FTS										
429.00 > 81.00	3.432	3.441	-0.009	0.997	73640	1.19		100	321	
13 1H,1H,2H,2H-perfluorooctanesulfo										M
427.00 > 407.00	3.441	3.441	0.0	1.003	222	0.004486		6.8		M
D 14 13C4 PFOA										
417.00 > 372.00	3.441	3.450	-0.009	1.000	564033	1.11		88.7	3641	
* 62 13C2 PFOA										
415.00 > 370.00	3.441	3.450	-0.009		645641	1.25		5014		
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.441	3.458	-0.017	1.000	58565	0.1257	Target=2.29	27.7		M
413.00 > 169.00	3.441	3.458	-0.017	1.000	29040		2.02(1.14-3.43)	83.8		M
D 18 13C4 PFOS										
503.00 > 80.00	3.755	3.765	-0.010	1.091	319624	0.8430		70.5	1367	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.755	3.765	-0.010	1.000	91973	0.3164	Target=7.10	62.2		M
499.00 > 99.00	3.755	3.765	-0.010	1.000	11605		7.93(3.55-10.64)	68.6		M
D 19 13C5 PFNA										
468.00 > 423.00	3.776	3.786	-0.010	1.097	411328	0.9599		76.8	4361	
D 23 13C2 PFDA										
515.00 > 470.00	4.072	4.082	-0.010	1.183	282334	0.6871		55.0	3750	
24 Perfluorodecanoic acid										RM
513.00 > 469.00	4.072	4.082	-0.010	1.000	544	0.002434	Target=6.81	1.2		RM
513.00 > 169.00	4.082	4.082	0.0	1.002	30		18.13(3.41-10.22)	0.7		M
D 26 M2-8:2 FTS										
529.00 > 81.00	4.082	4.092	-0.010	1.186	50759	0.6957		58.1	191	
D 21 13C8 FOSA										
506.00 > 78.00	4.139	4.139	0.0	1.203	532676	0.8044		64.4	2288	
22 Perfluorooctanesulfonamide										M
498.00 > 78.00	4.127	4.139	-0.012	0.997	589	0.001479		2.2		M
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.214	4.214	0.0	1.224	13809	0.5902		47.2	465	
28 N-methylperfluorooctanesulfonami										M
570.00 > 419.00	4.115	4.224	-0.109	0.977	84	0.008057		0.8		M
D 30 13C2 PFUnA										
565.00 > 520.00	4.332	4.343	-0.011	1.259	167089	0.5386		43.1	2126	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.343	4.343	0.0	1.262	12773	0.5079		40.6	268	
33 N-ethylperfluorooctanesulfonamid										M
584.00 > 419.00	4.214	4.355	-0.141	0.970	75	0.008017		1.5		M
D 36 13C2 PFDoA										
615.00 > 570.00	4.561	4.561	0.0	1.325	151990	0.4636		37.1	3843	
37 Perfluorododecanoic acid										RM
613.00 > 569.00	4.561	4.561	0.0	1.000	424	0.003576	Target=5.16	1.0		RM
613.00 > 169.00	4.561	4.561	0.0	1.000	38		11.16(2.58-7.75)	1.2		M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
41 Perfluorotridecanoic acid										M
663.00 > 619.00	4.781	4.772	0.009	1.048	281	0.002790	Target=3.30		0.6	M
663.00 > 169.00	4.763	4.772	-0.009	1.044	145		1.94(1.65-4.95)		4.1	M
D 43 13C2 PFTeDA										
715.00 > 670.00	4.969	4.969	0.0	1.444	116671	0.4996		40.0	2793	
42 Perfluorotetradecanoic acid										M
713.00 > 169.00	4.969	4.969	0.0	1.000	72	0.003368	Target=1.06		2.3	M
713.00 > 219.00	4.930	4.969	-0.039	0.992	131		0.55(0.53-1.59)		3.3	M

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d

Injection Date: 27-Oct-2020 20:07:08

Instrument ID: LC812

Lims ID: 480-176996-C-4-A

Lab Sample ID: 200-176996-4

Client ID: B1243-W05

Operator ID: lc812tech

ALS Bottle#: 20

Worklist Smp#: 23

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

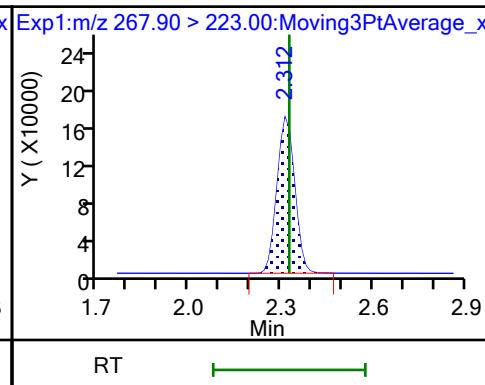
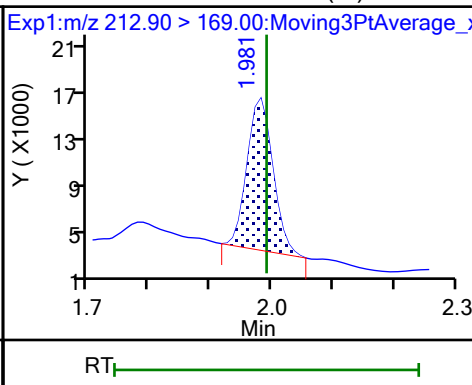
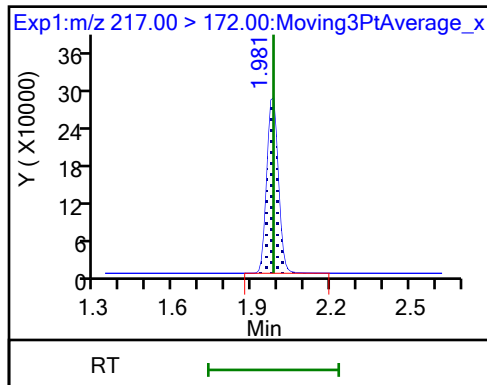
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid (M)

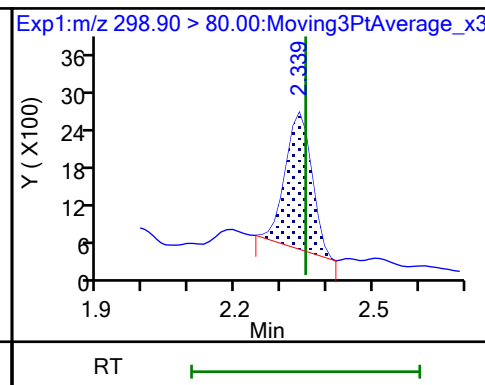
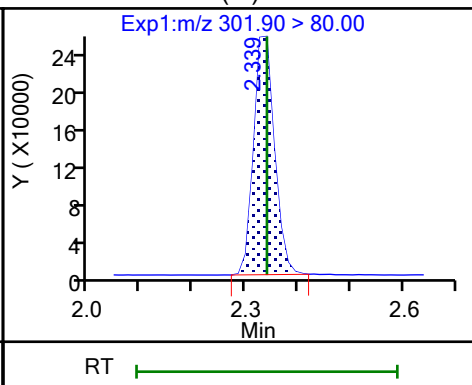
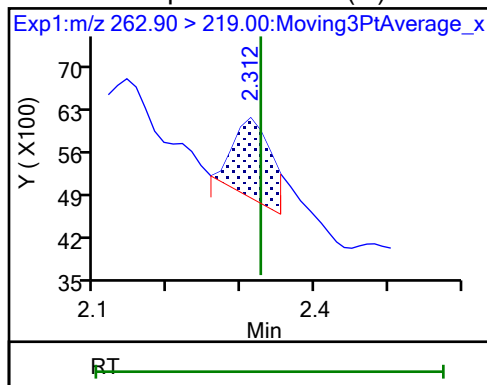
D 3 13C5 PFPeA



4 Perfluoropentanoic acid (M)

D 47 13C3 PFBS (M)

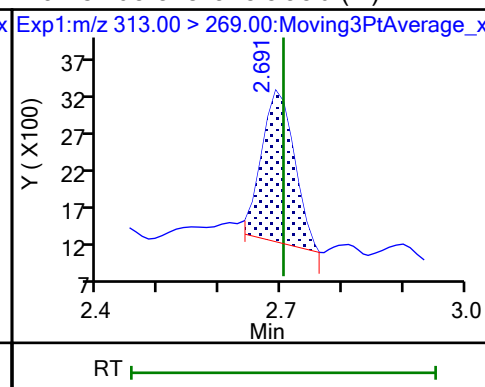
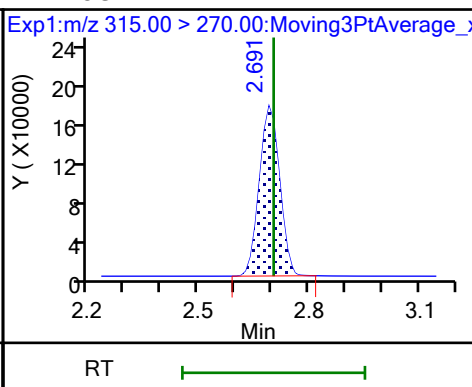
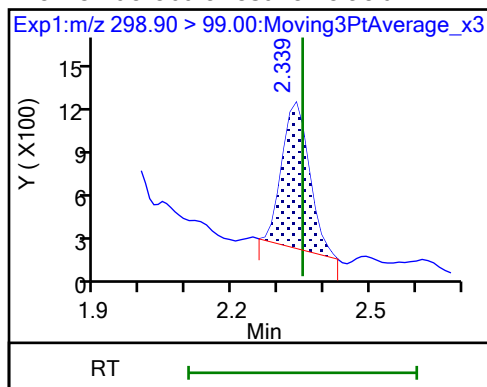
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

D 7 13C2 PFHxA

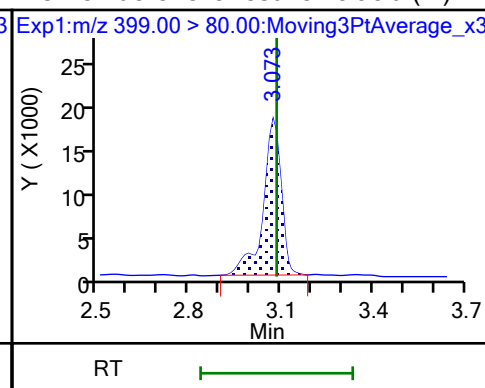
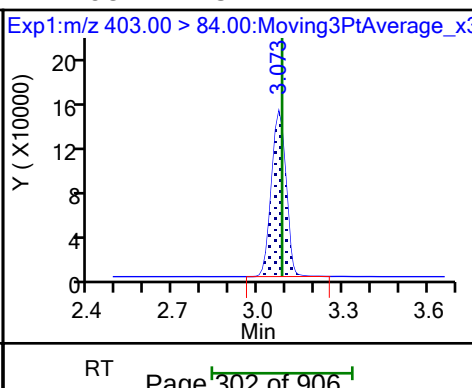
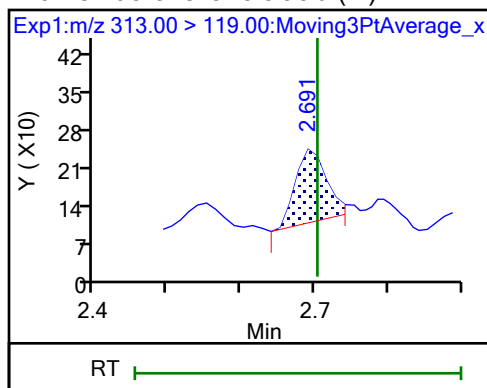
6 Perfluorohexanoic acid (M)

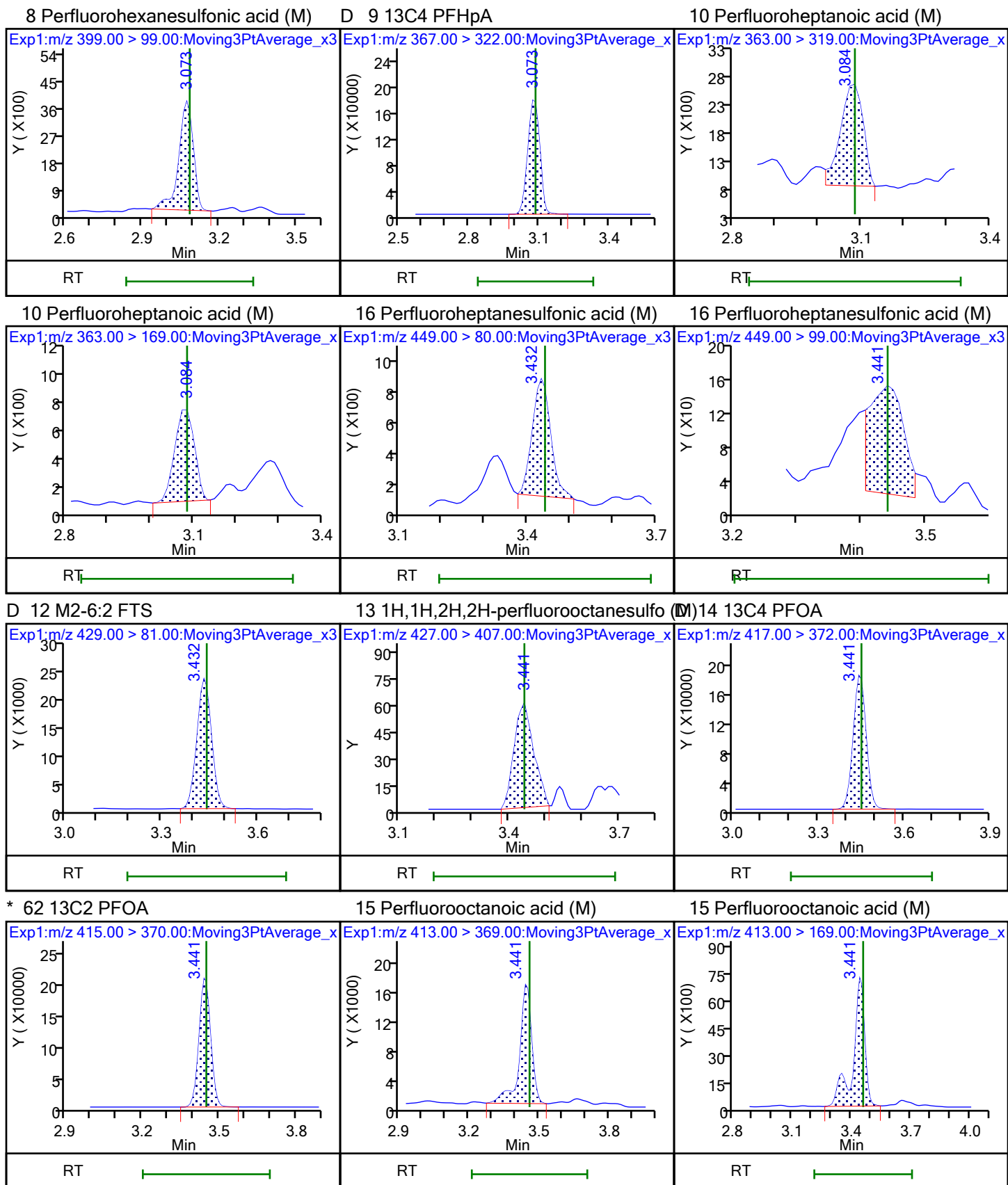


6 Perfluorohexanoic acid (M)

D 11 18O2 PFHxS

8 Perfluorohexanesulfonic acid (M)

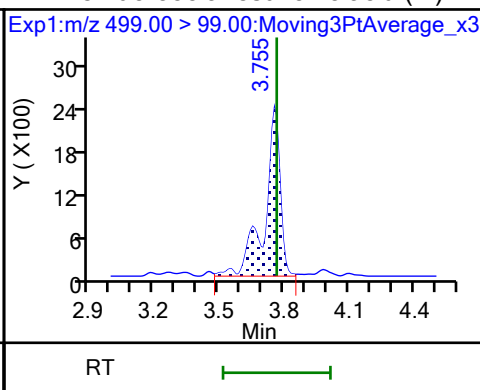
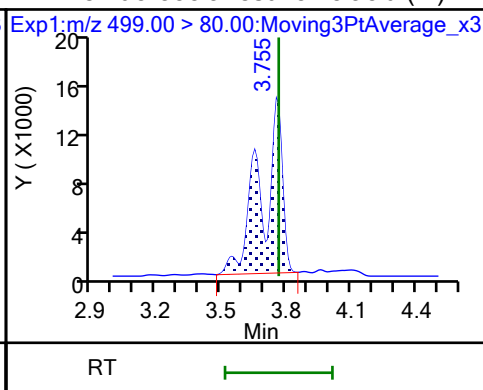
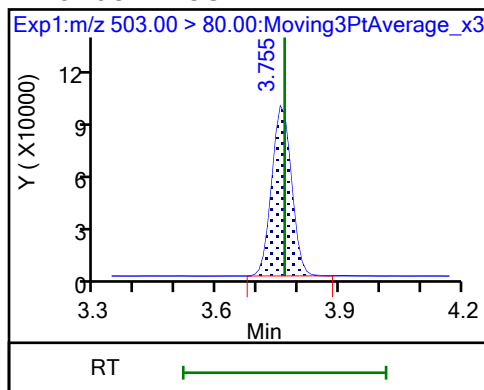




D 18 13C4 PFOS

17 Perfluorooctanesulfonic acid (M)

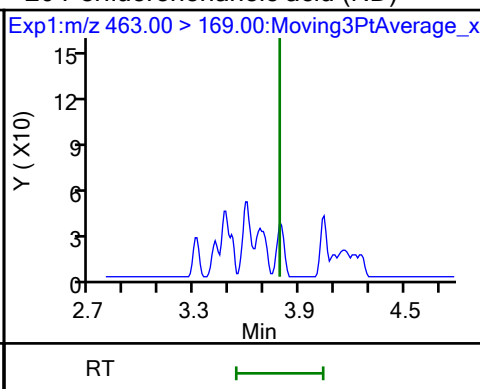
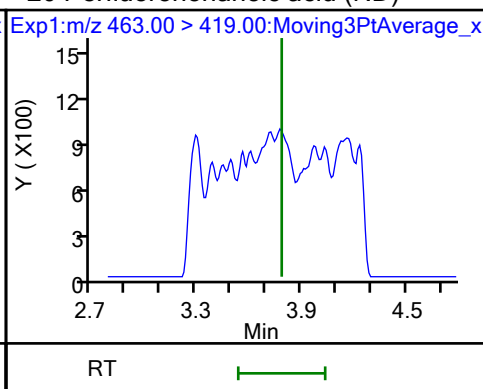
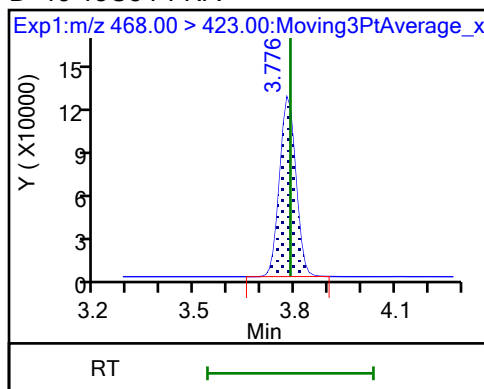
17 Perfluorooctanesulfonic acid (M)



D 19 13C5 PFNA

20 Perfluorononanoic acid (ND)

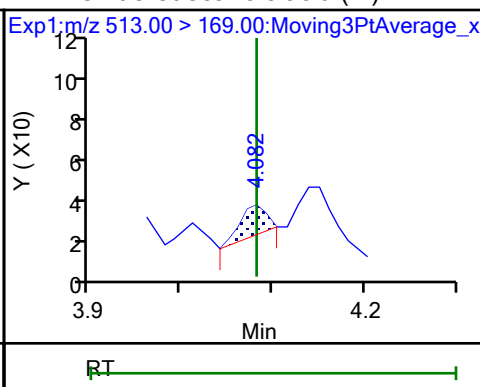
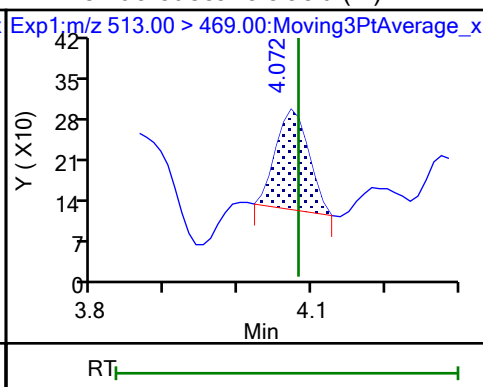
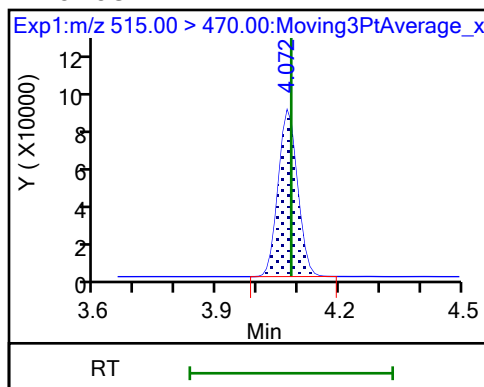
20 Perfluorononanoic acid (ND)



D 23 13C2 PFDA

24 Perfluorodecanoic acid (M)

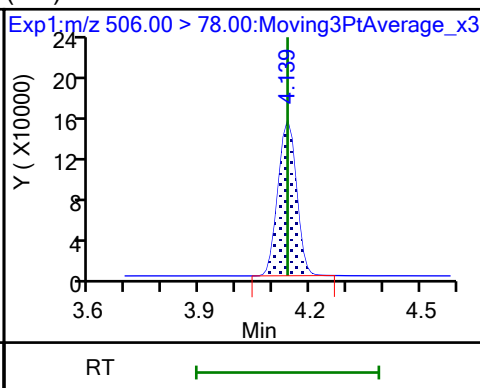
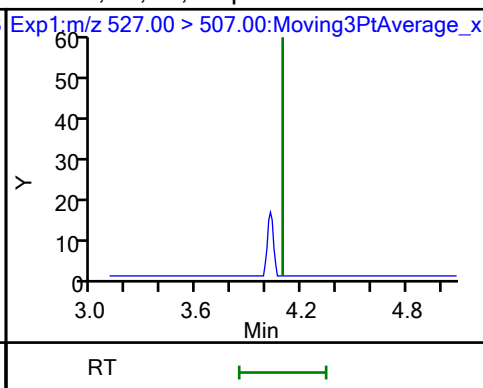
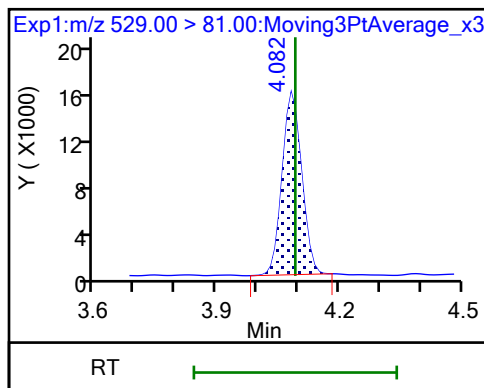
24 Perfluorodecanoic acid (M)

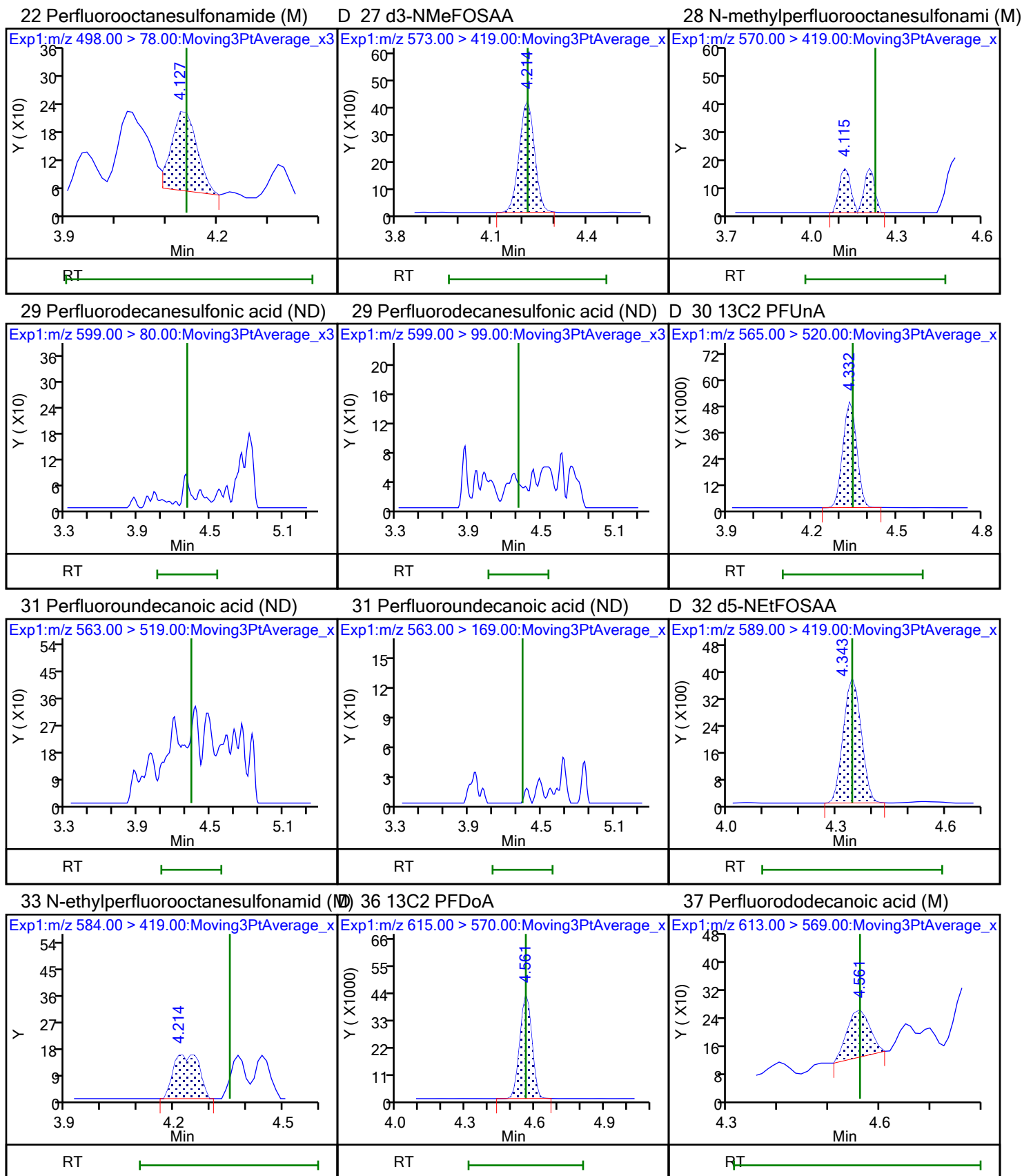


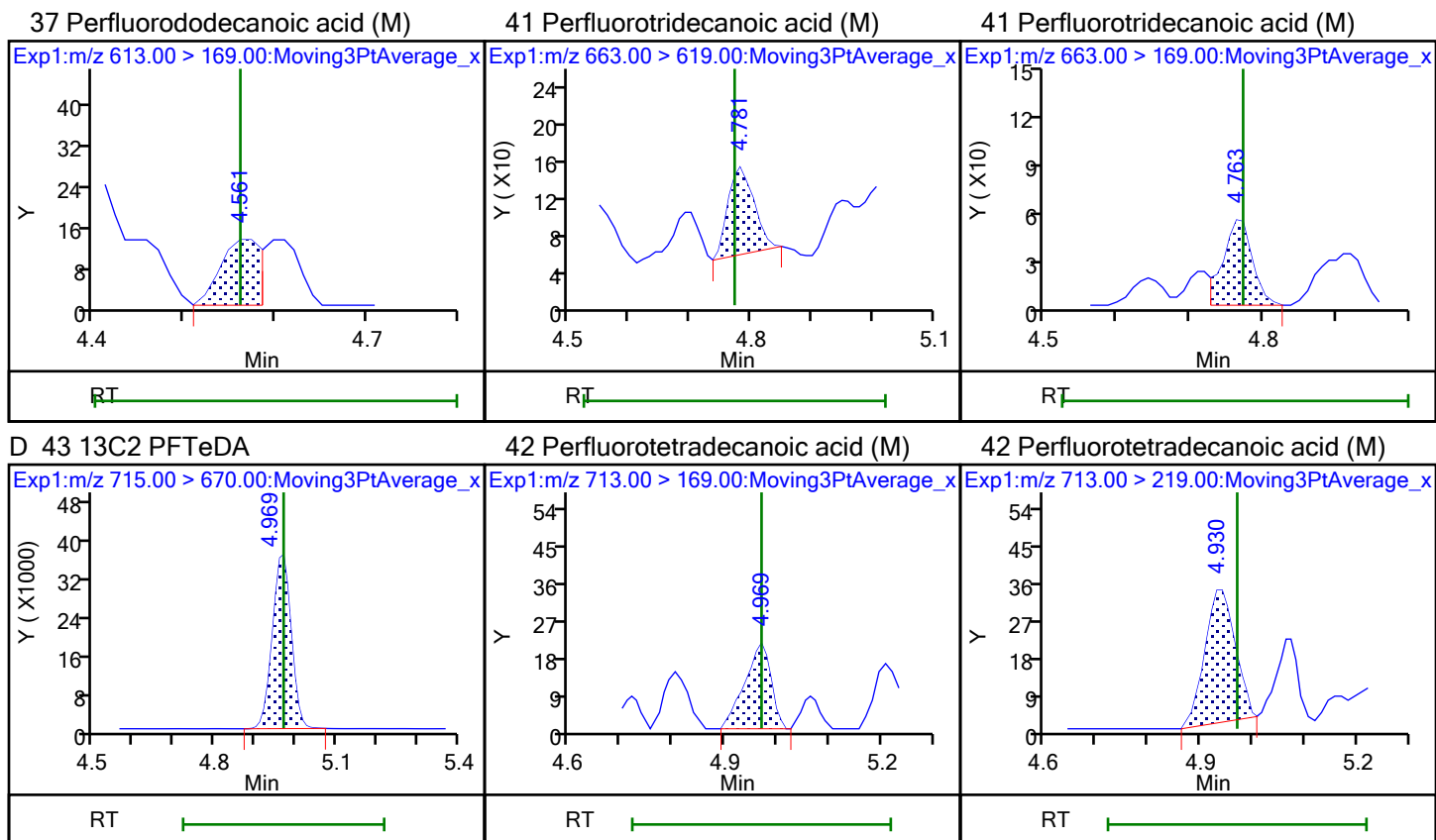
D 26 M2-8:2 FTS

25 1H,1H,2H,2H-perfluorodecanesulfonic acid (ND)

13C8 FOSA







Eurofins TestAmerica, Burlington

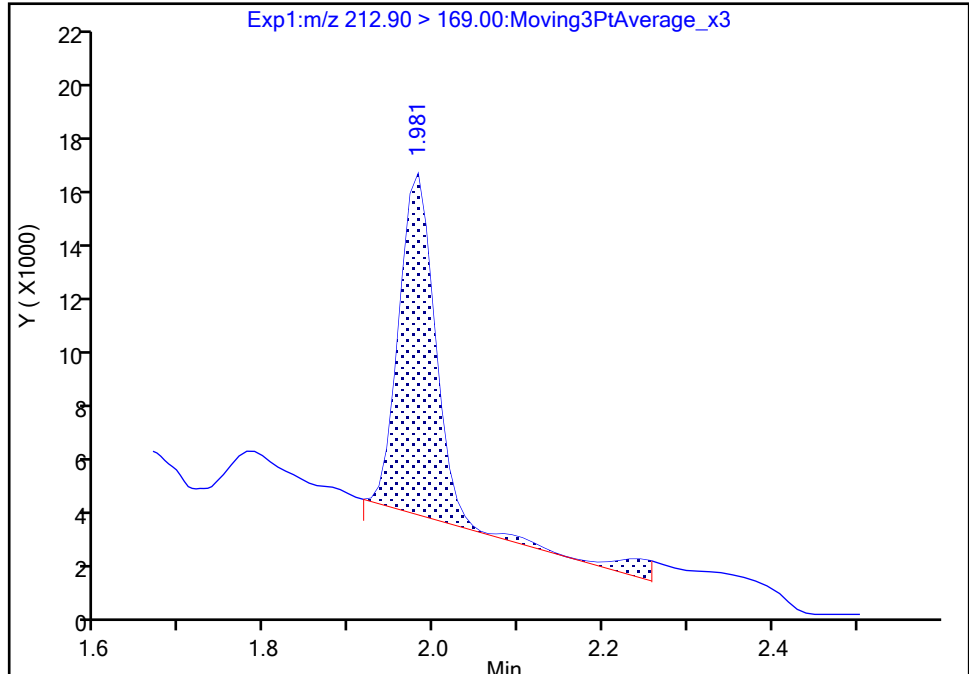
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d				
Injection Date:	27-Oct-2020 20:07:08	Instrument ID:	LC812		
Lims ID:	480-176996-C-4-A	Lab Sample ID:	200-176996-4		
Client ID:	B1243-W05				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	23
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

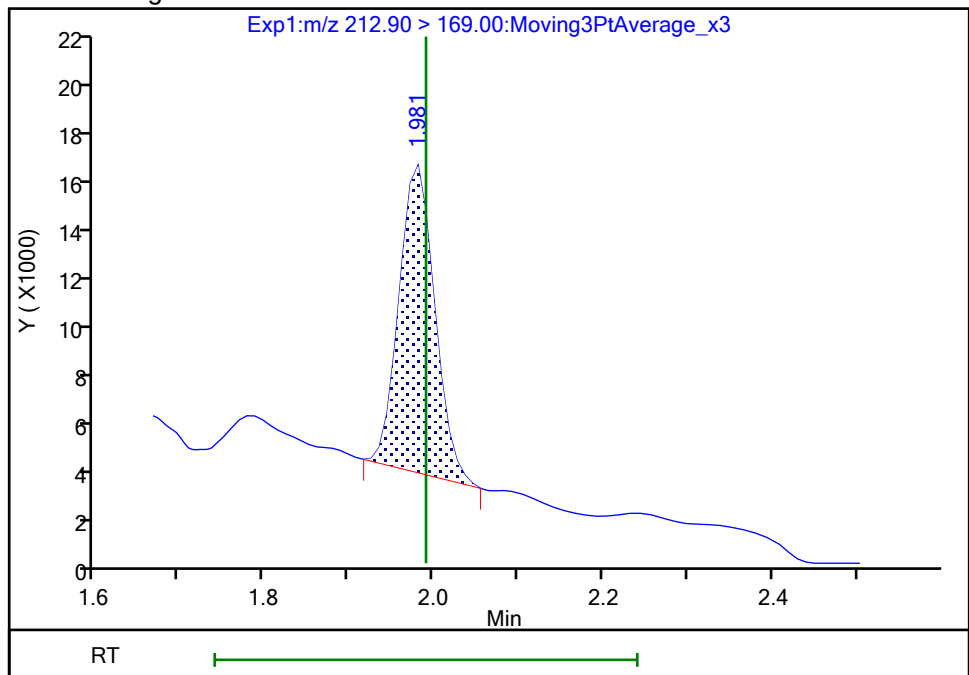
RT: 1.98
Area: 39962
Amount: 0.063160
Amount Units: ng/ml

Processing Integration Results



RT: 1.98
Area: 37124
Amount: 0.058675
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:57:38

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

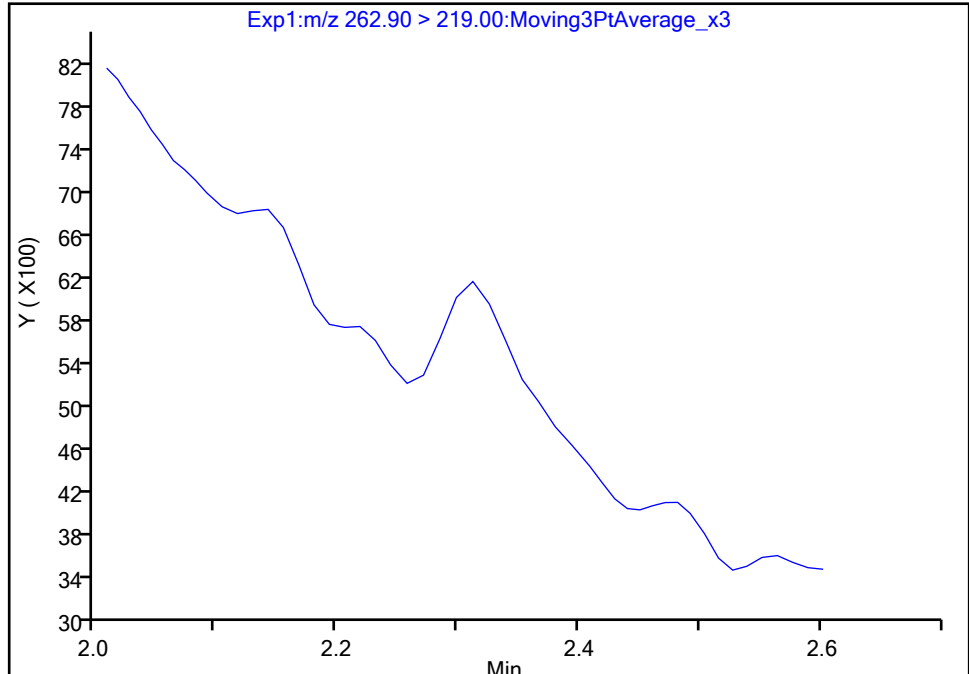
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d
Injection Date: 27-Oct-2020 20:07:08 Instrument ID: LC812
Lims ID: 480-176996-C-4-A Lab Sample ID: 200-176996-4
Client ID: B1243-W05
Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

4 Perfluoropentanoic acid, CAS: 2706-90-3

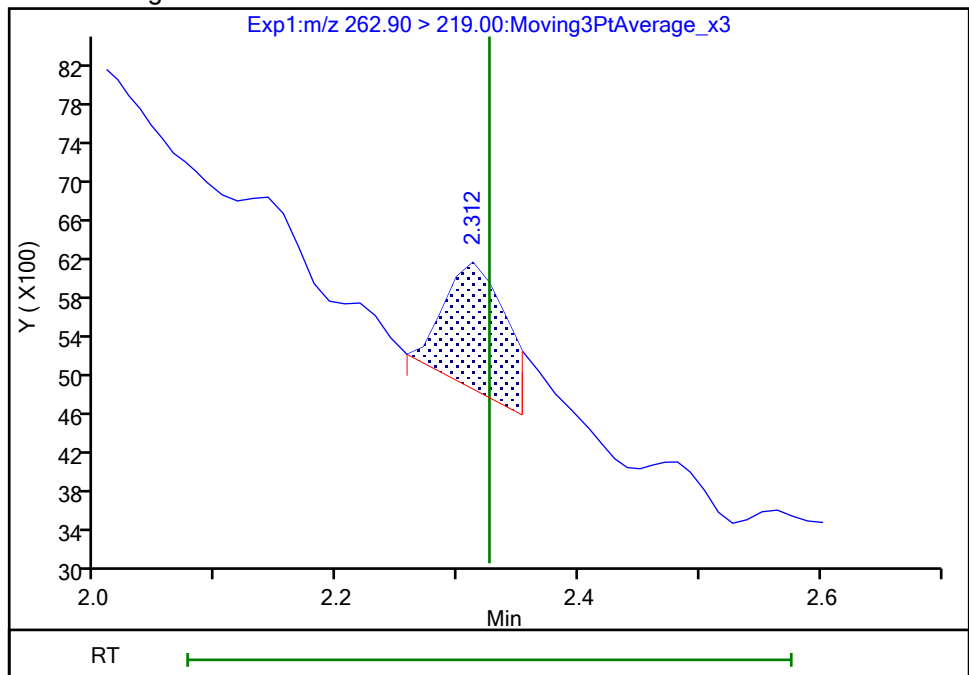
Signal: 1

Not Detected
Expected RT: 2.33

Processing Integration Results



Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 13:01:46

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

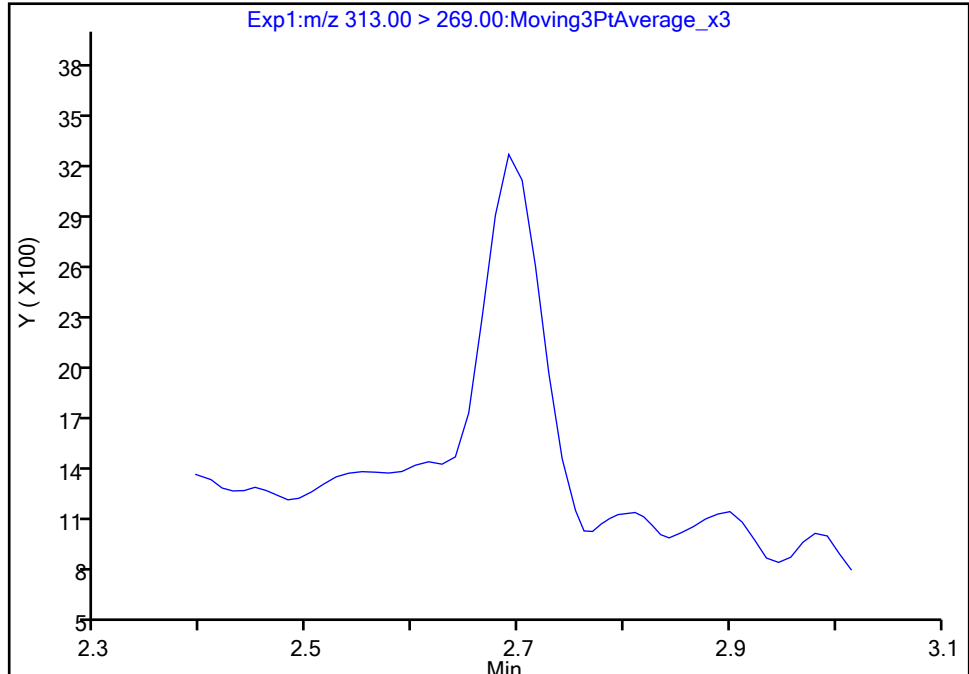
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d
Injection Date: 27-Oct-2020 20:07:08 Instrument ID: LC812
Lims ID: 480-176996-C-4-A Lab Sample ID: 200-176996-4
Client ID: B1243-W05
Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

6 Perfluorohexanoic acid, CAS: 307-24-4

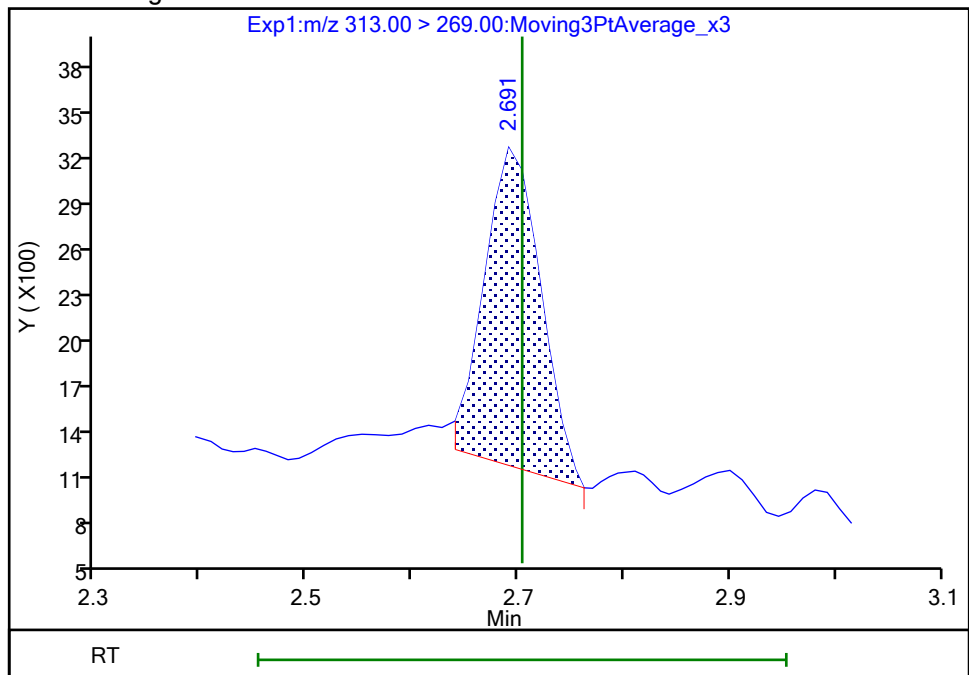
Signal: 1

Not Detected
Expected RT: 2.70

Processing Integration Results



Manual Integration Results



RT: 2.69
Area: 7494
Amount: 0.014028
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:58:04

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

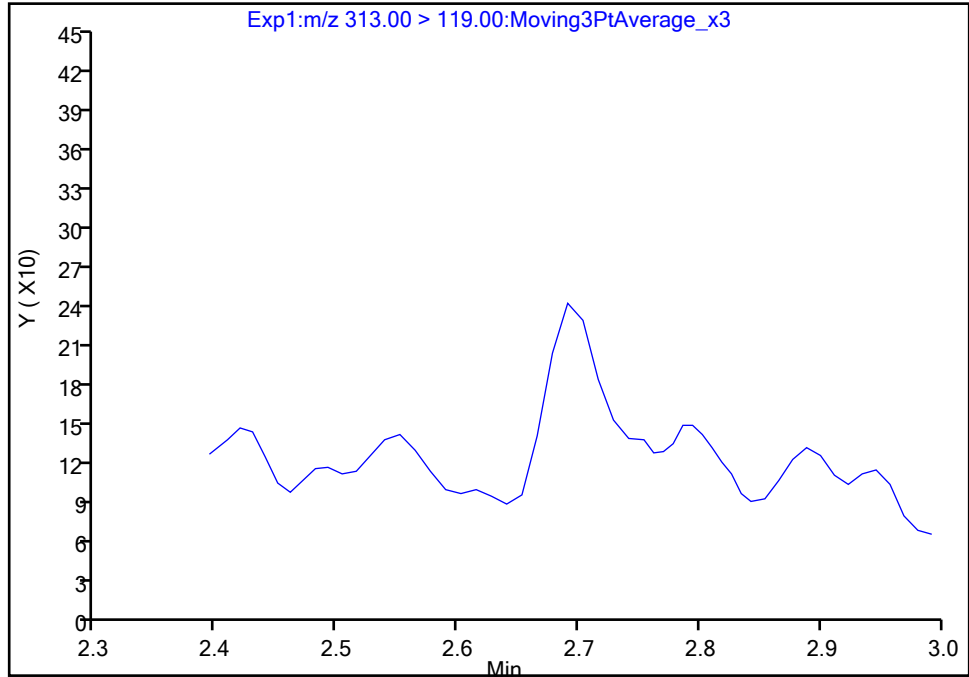
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d
Injection Date: 27-Oct-2020 20:07:08 Instrument ID: LC812
Lims ID: 480-176996-C-4-A Lab Sample ID: 200-176996-4
Client ID: B1243-W05
Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

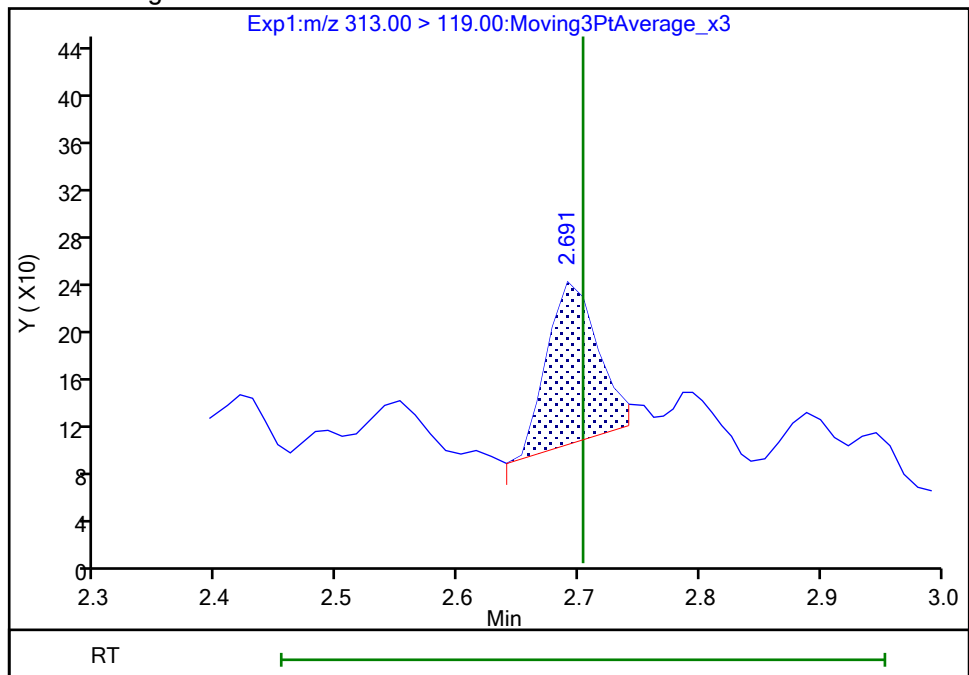
Not Detected
Expected RT: 2.70

Processing Integration Results



Manual Integration Results

RT: 2.69
Area: 396
Amount: 0.014028
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 09:58:05

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

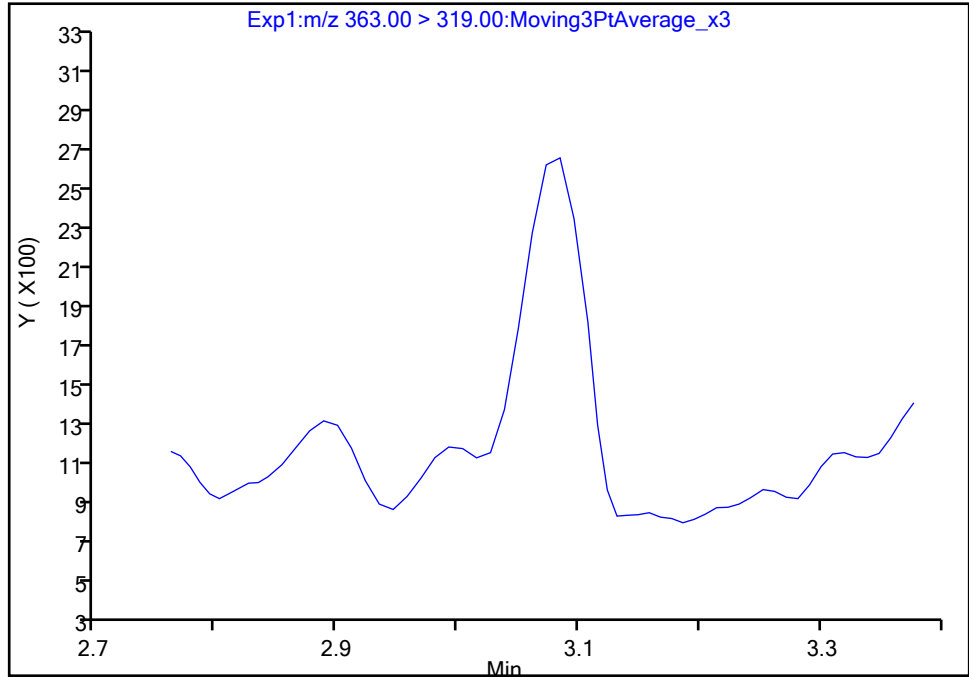
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d				
Injection Date:	27-Oct-2020 20:07:08	Instrument ID:	LC812		
Lims ID:	480-176996-C-4-A	Lab Sample ID:	200-176996-4		
Client ID:	B1243-W05				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	23
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

10 Perfluoroheptanoic acid, CAS: 375-85-9

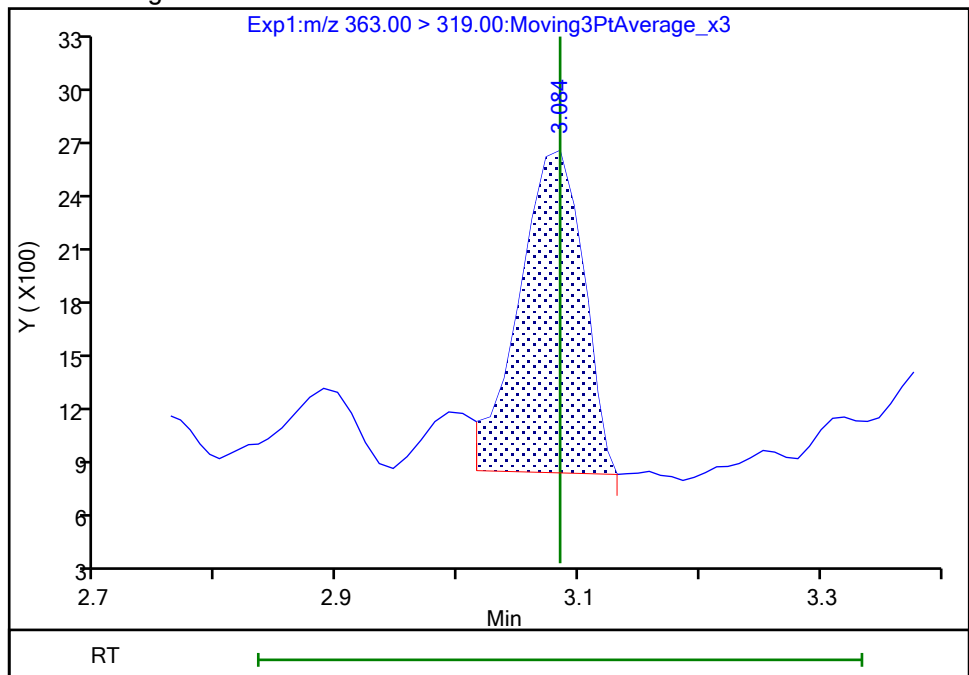
Signal: 1

Not Detected
Expected RT: 3.08

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:58:33

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

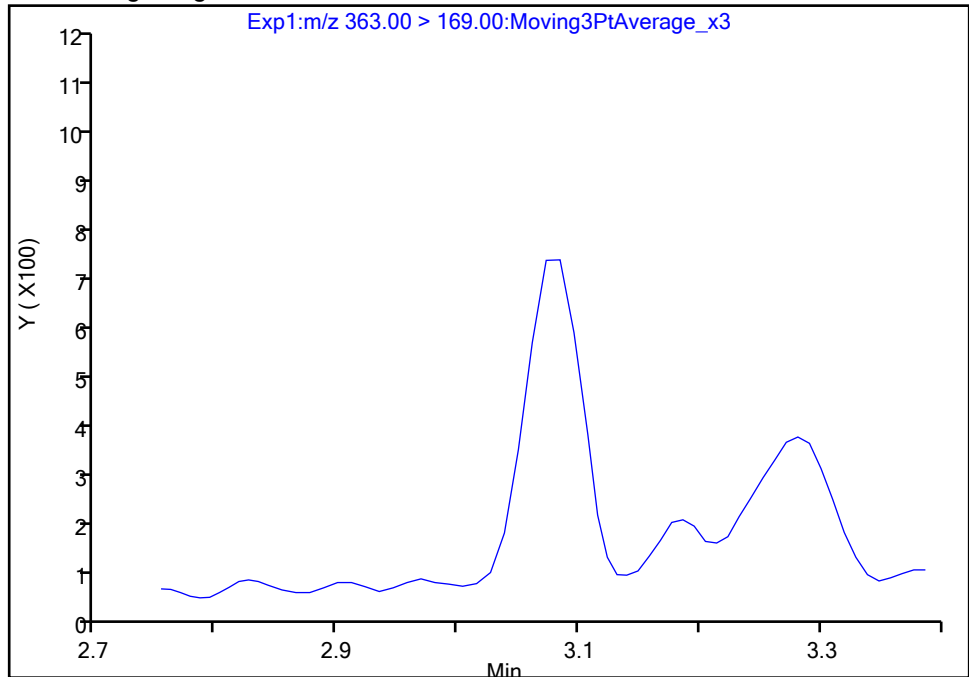
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d
Injection Date: 27-Oct-2020 20:07:08 Instrument ID: LC812
Lims ID: 480-176996-C-4-A Lab Sample ID: 200-176996-4
Client ID: B1243-W05
Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

10 Perfluoroheptanoic acid, CAS: 375-85-9

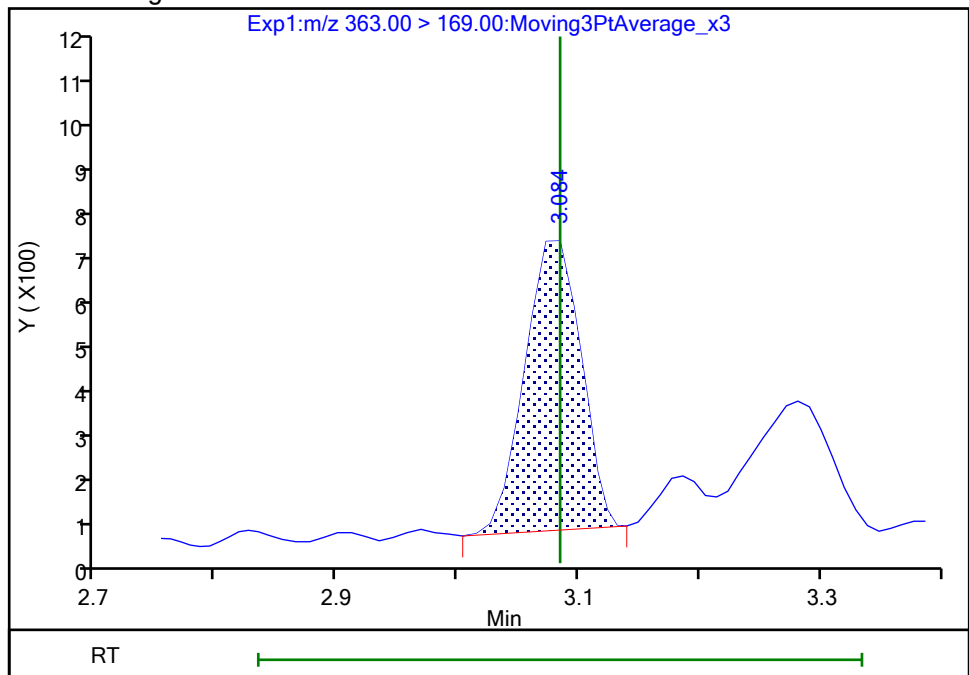
Signal: 2

Not Detected
Expected RT: 3.08

Processing Integration Results



Manual Integration Results



RT: 3.08
Area: 1966
Amount: 0.012965
Amount Units: ng/ml

Eurofins TestAmerica, Burlington

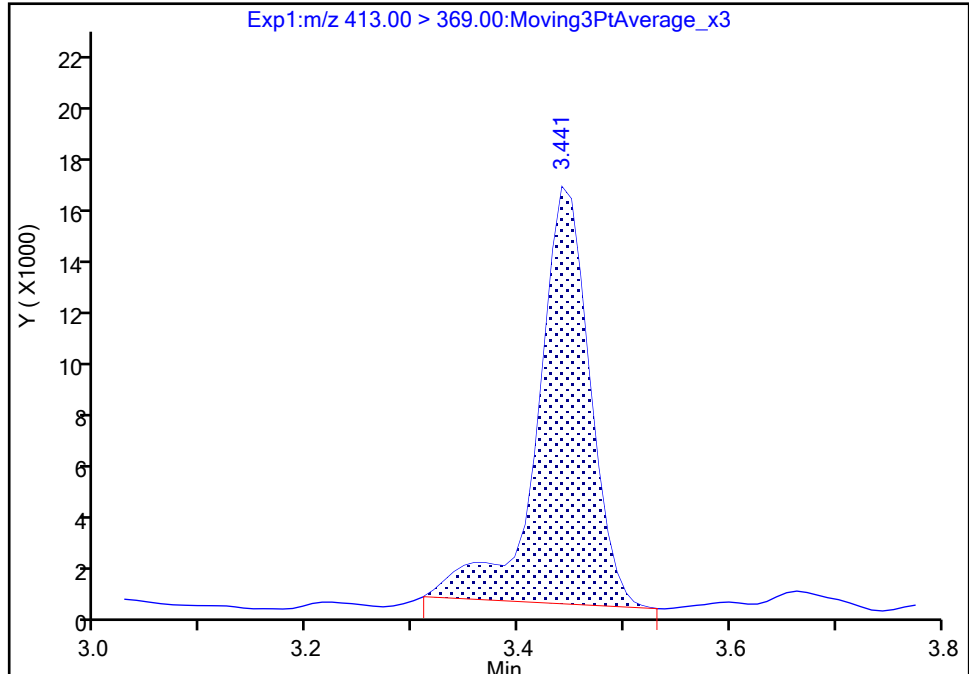
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d				
Injection Date:	27-Oct-2020 20:07:08	Instrument ID:	LC812		
Lims ID:	480-176996-C-4-A	Lab Sample ID:	200-176996-4		
Client ID:	B1243-W05				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	23
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

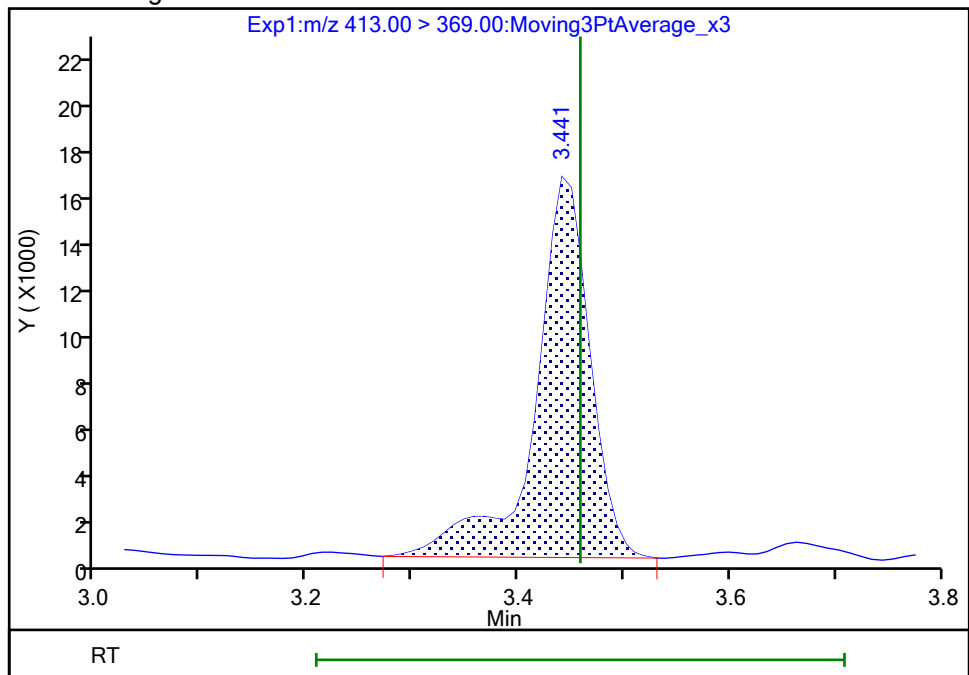
RT: 3.44
Area: 55560
Amount: 0.119264
Amount Units: ng/ml

Processing Integration Results



RT: 3.44
Area: 58565
Amount: 0.125714
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:59:11

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

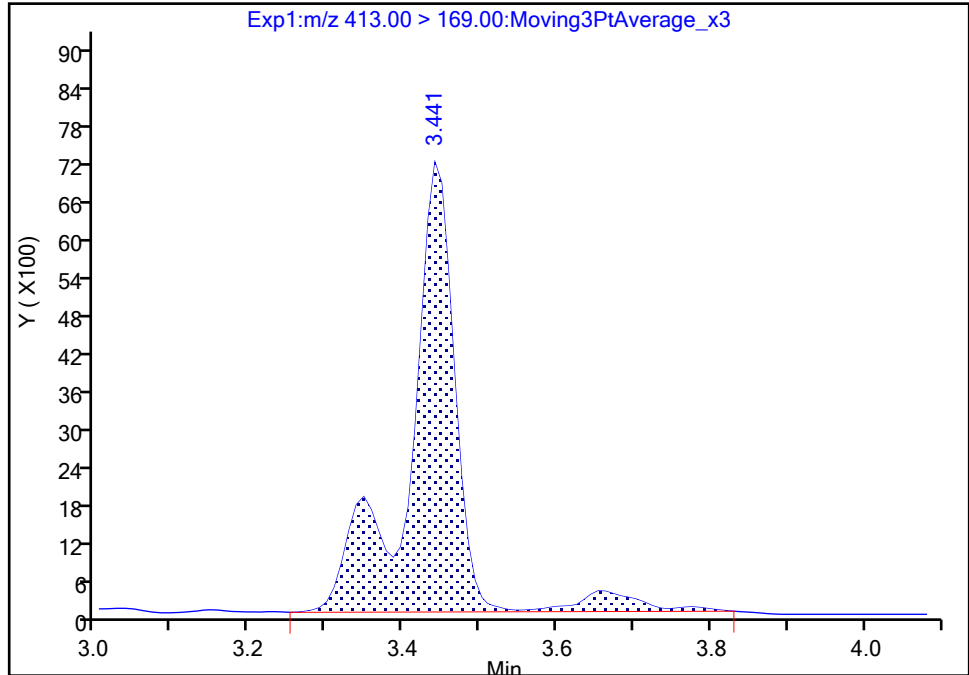
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d
Injection Date: 27-Oct-2020 20:07:08 Instrument ID: LC812
Lims ID: 480-176996-C-4-A Lab Sample ID: 200-176996-4
Client ID: B1243-W05
Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

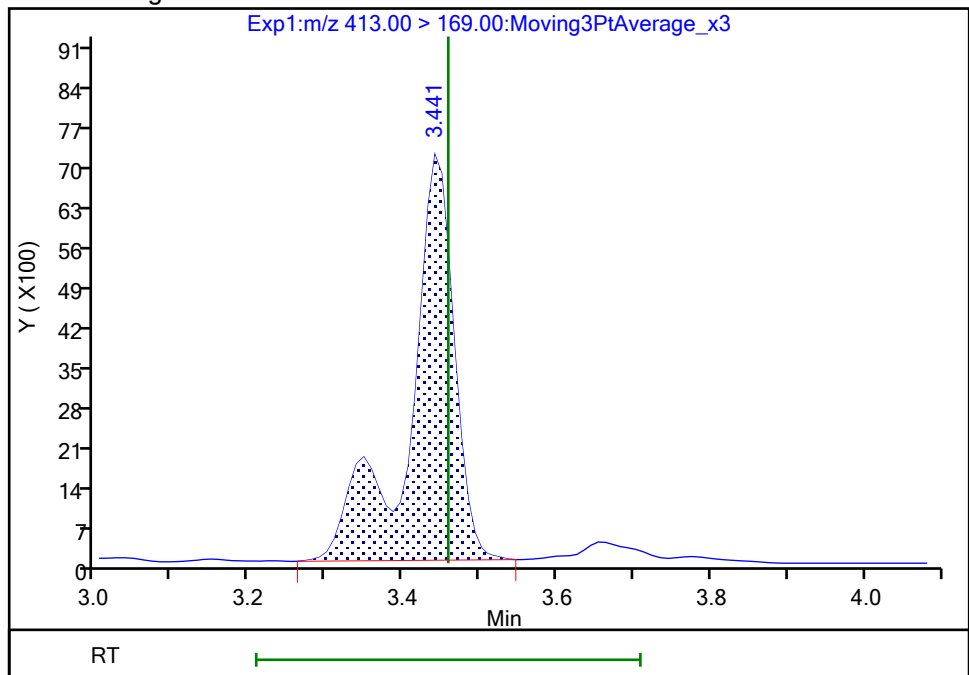
RT: 3.44
Area: 31165
Amount: 0.119264
Amount Units: ng/ml

Processing Integration Results



RT: 3.44
Area: 29040
Amount: 0.125714
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:59:17

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

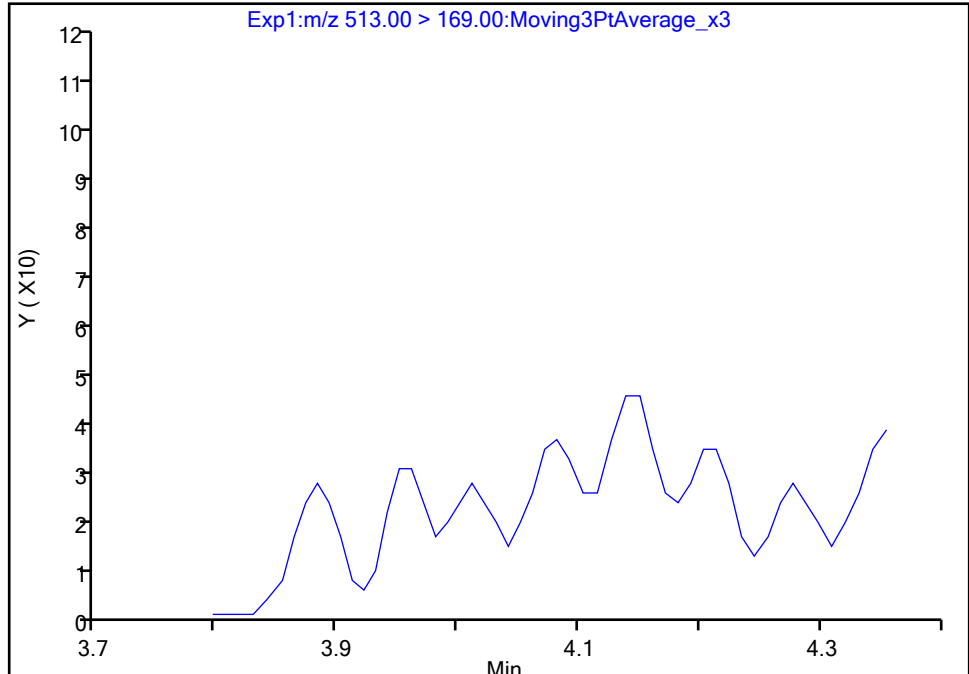
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d
Injection Date: 27-Oct-2020 20:07:08 Instrument ID: LC812
Lims ID: 480-176996-C-4-A Lab Sample ID: 200-176996-4
Client ID: B1243-W05
Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

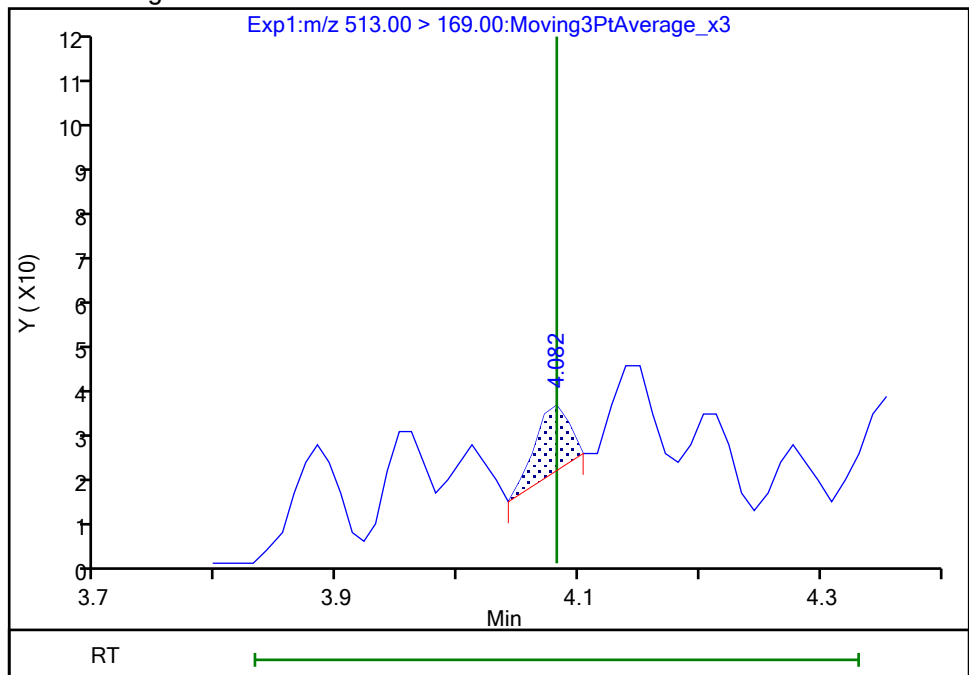
Not Detected
Expected RT: 4.08

Processing Integration Results



Manual Integration Results

RT: 4.08
Area: 30
Amount: 0.002434
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 09:59:55

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

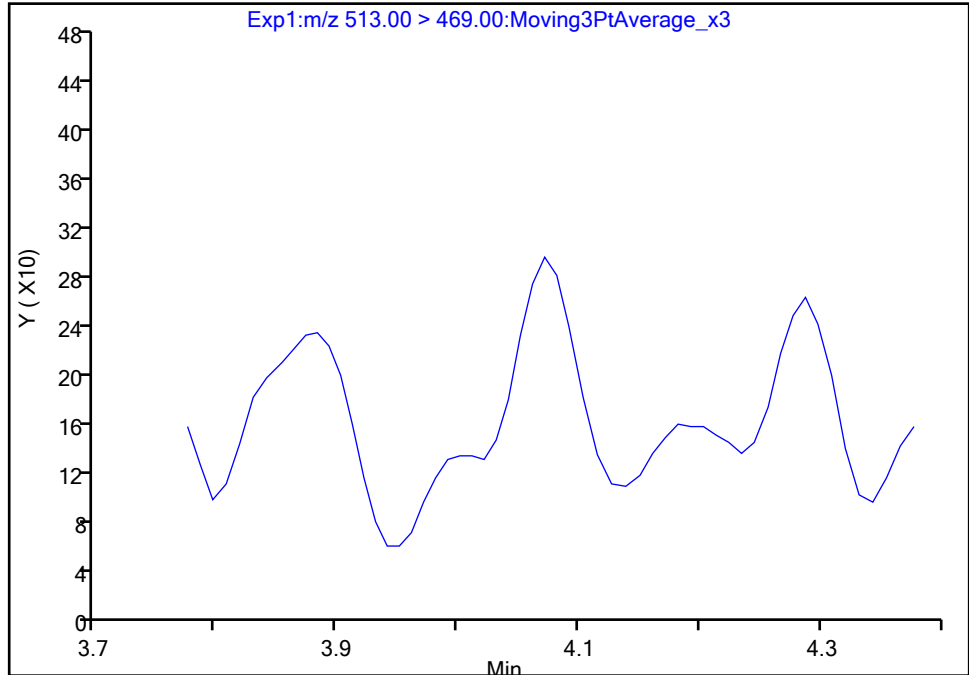
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d
Injection Date: 27-Oct-2020 20:07:08 Instrument ID: LC812
Lims ID: 480-176996-C-4-A Lab Sample ID: 200-176996-4
Client ID: B1243-W05
Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

24 Perfluorodecanoic acid, CAS: 335-76-2

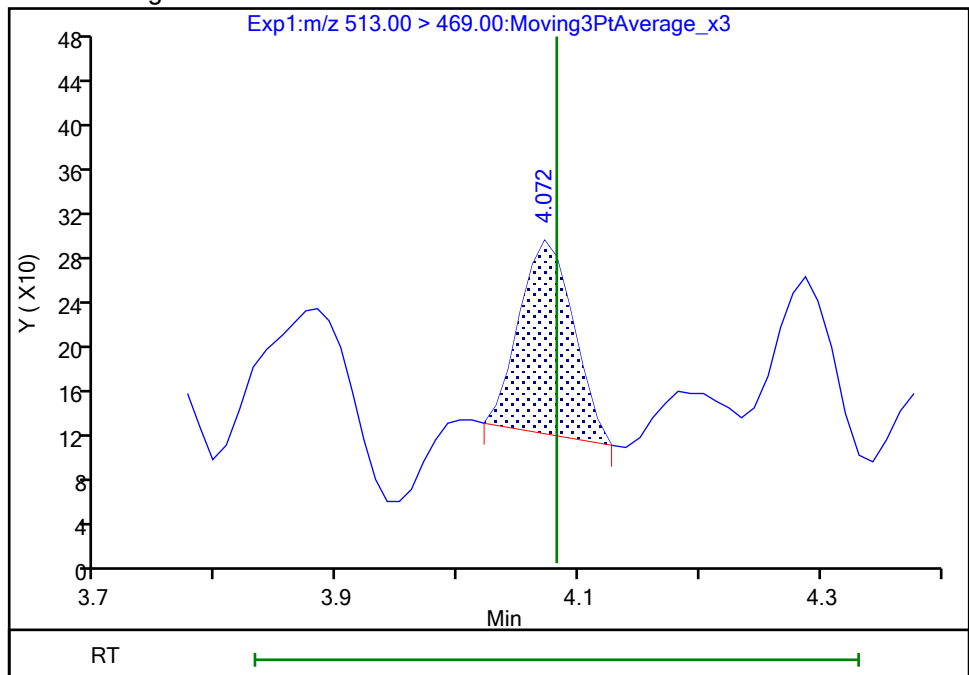
Signal: 1

Not Detected
Expected RT: 4.08

Processing Integration Results



Manual Integration Results



RT: 4.07
Area: 544
Amount: 0.002434
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:59:58

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 316 of 906

Eurofins TestAmerica, Burlington

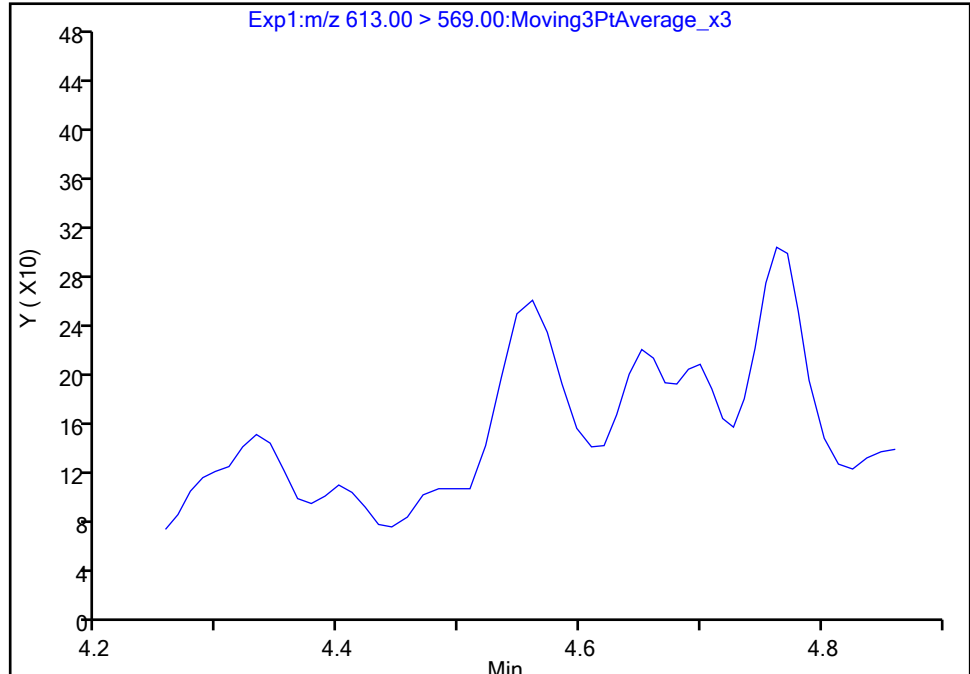
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d				
Injection Date:	27-Oct-2020 20:07:08	Instrument ID:	LC812		
Lims ID:	480-176996-C-4-A	Lab Sample ID:	200-176996-4		
Client ID:	B1243-W05				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	23
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

37 Perfluorododecanoic acid, CAS: 307-55-1

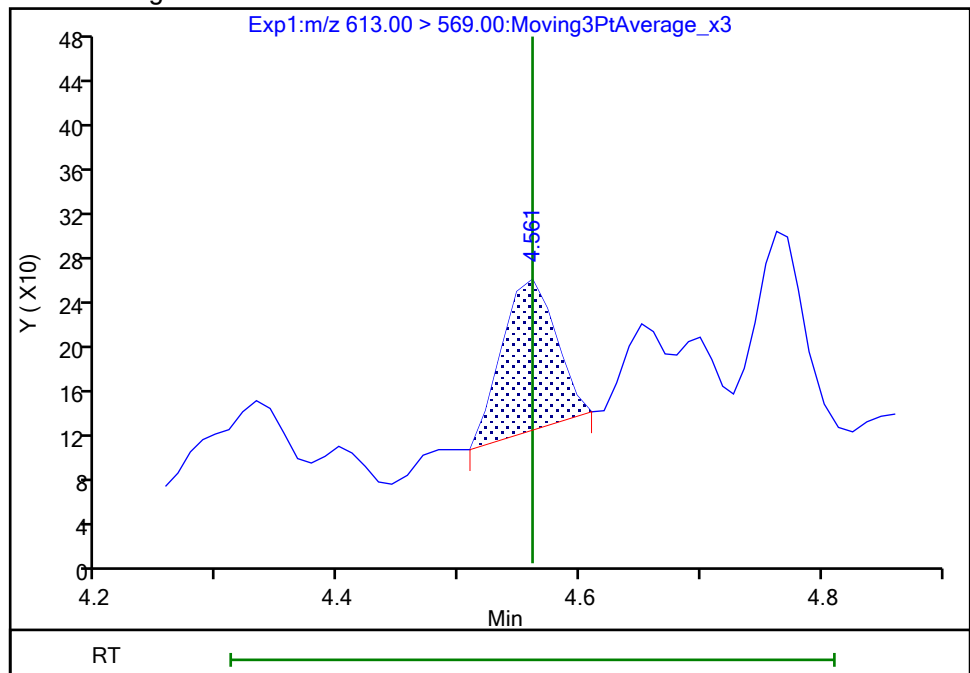
Signal: 1

Not Detected
Expected RT: 4.56

Processing Integration Results



Manual Integration Results



RT: 4.56
Area: 424
Amount: 0.003576
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:00:49

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

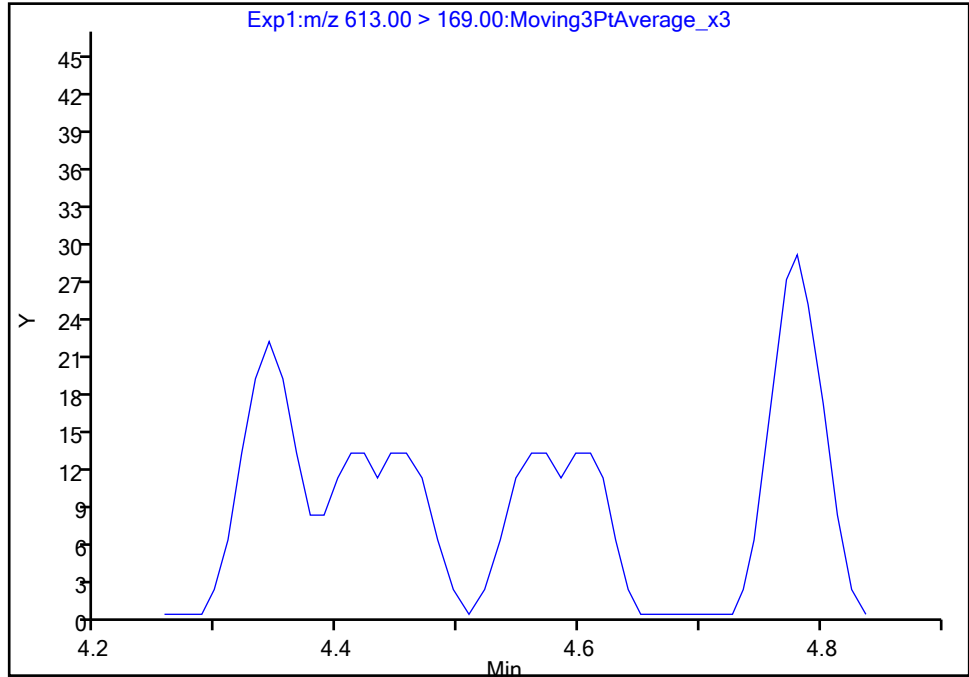
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d
Injection Date: 27-Oct-2020 20:07:08 Instrument ID: LC812
Lims ID: 480-176996-C-4-A Lab Sample ID: 200-176996-4
Client ID: B1243-W05
Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

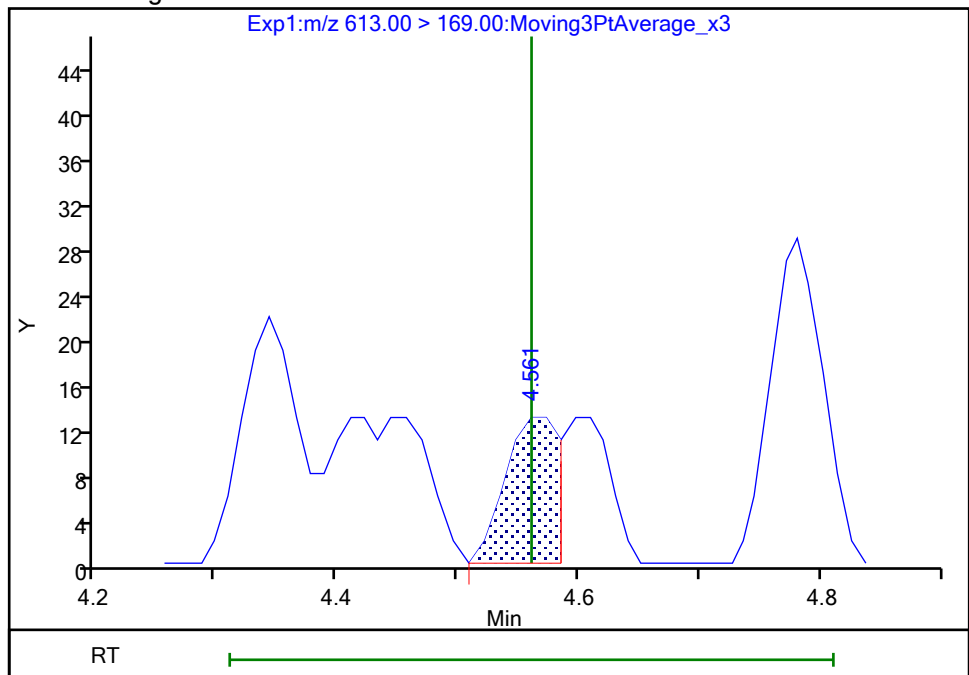
Not Detected
Expected RT: 4.56

Processing Integration Results



Manual Integration Results

RT: 4.56
Area: 38
Amount: 0.003576
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 10:00:58

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

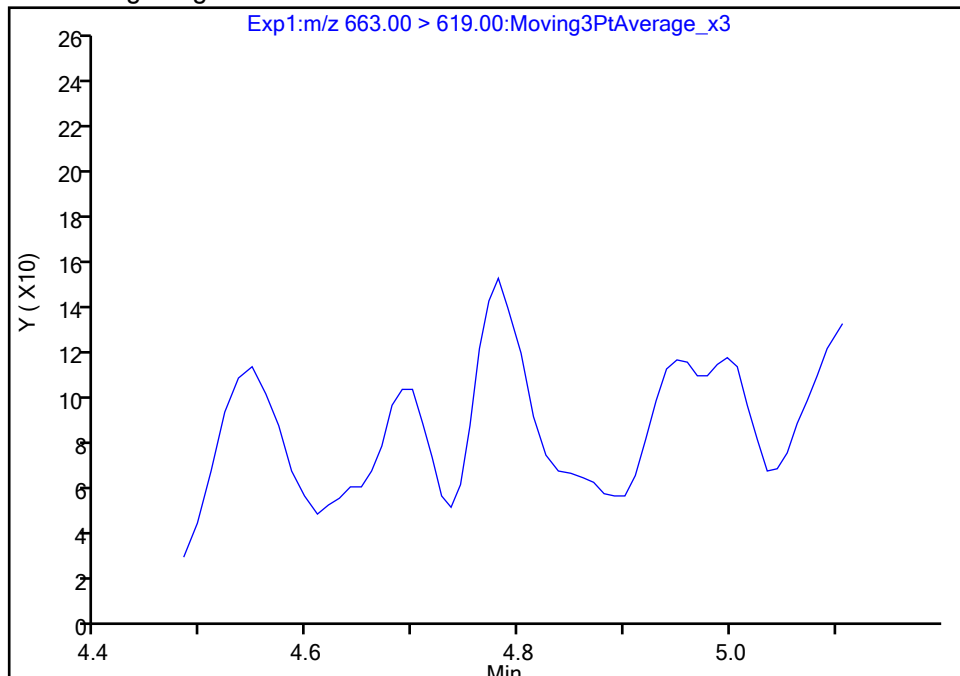
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d
Injection Date: 27-Oct-2020 20:07:08 Instrument ID: LC812
Lims ID: 480-176996-C-4-A Lab Sample ID: 200-176996-4
Client ID: B1243-W05
Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

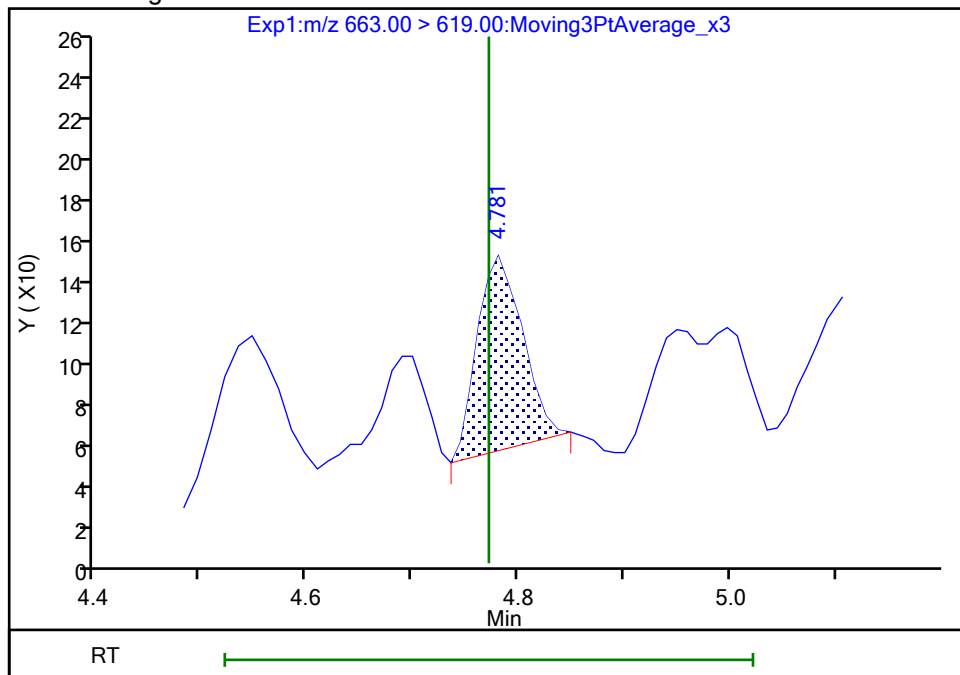
Not Detected
Expected RT: 4.77

Processing Integration Results



RT: 4.78
Area: 281
Amount: 0.002790
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 13:03:09
Audit Action: Manually Integrated

Audit Reason: Missed Peak
Page 319 of 906

Eurofins TestAmerica, Burlington

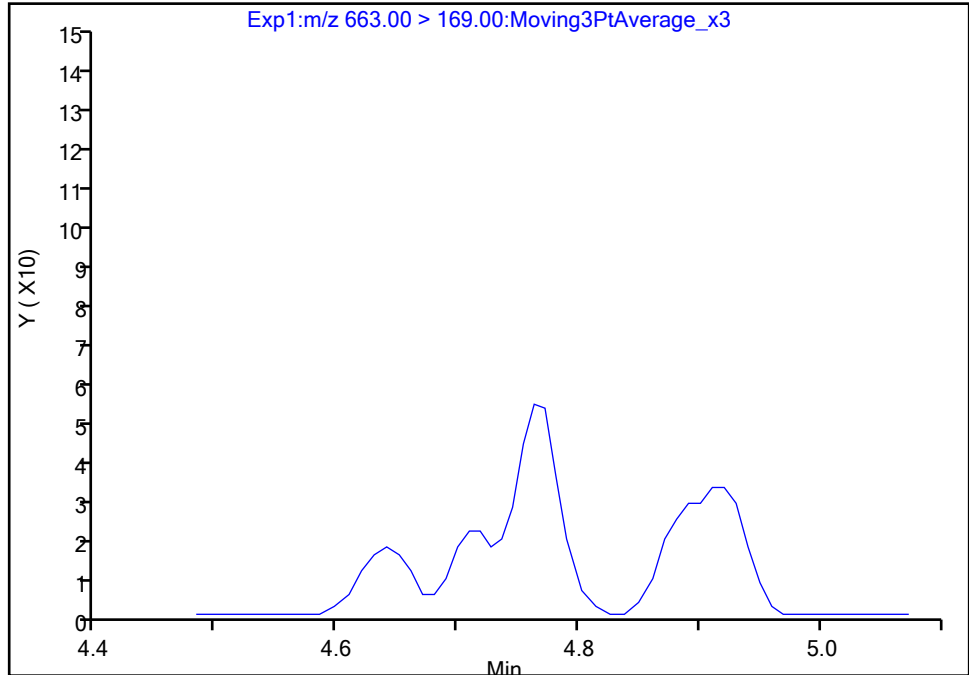
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d
Injection Date: 27-Oct-2020 20:07:08 Instrument ID: LC812
Lims ID: 480-176996-C-4-A Lab Sample ID: 200-176996-4
Client ID: B1243-W05
Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

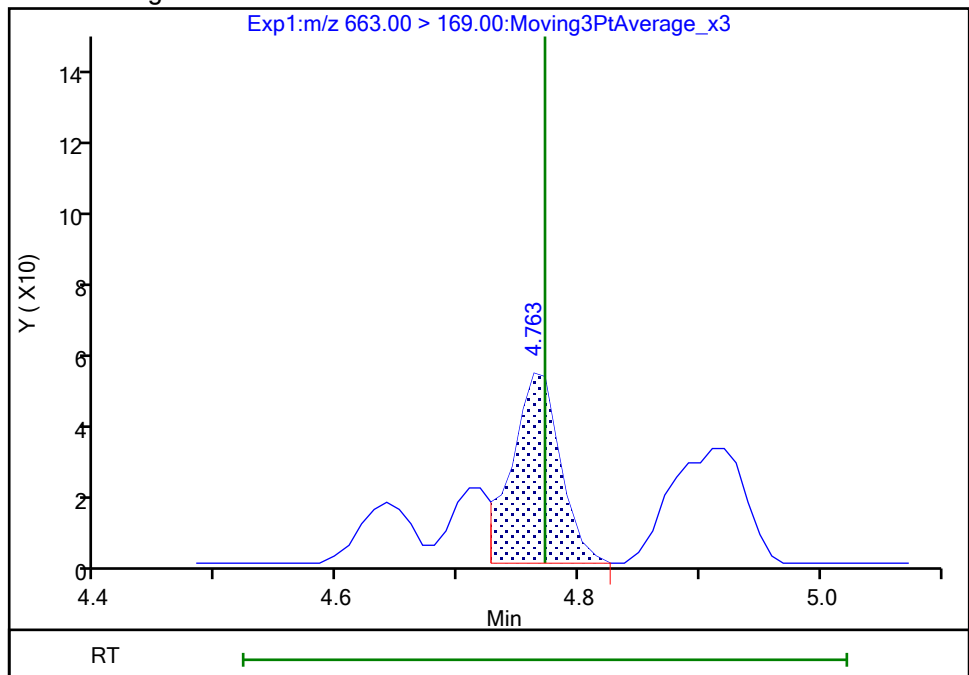
Not Detected
Expected RT: 4.77

Processing Integration Results



RT: 4.76
Area: 145
Amount: 0.002790
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 13:03:18

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

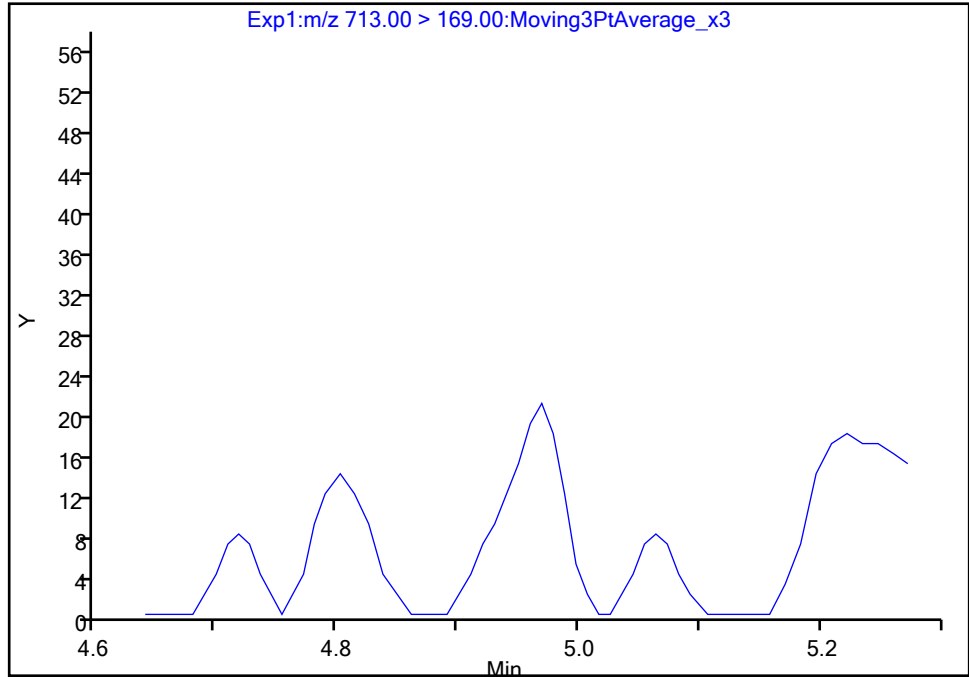
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Injection Date: 27-Oct-2020 20:07:08 Instrument ID: LC812
Lims ID: 480-176996-C-4-A Lab Sample ID: 200-176996-4
Client ID: B1243-W05
Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

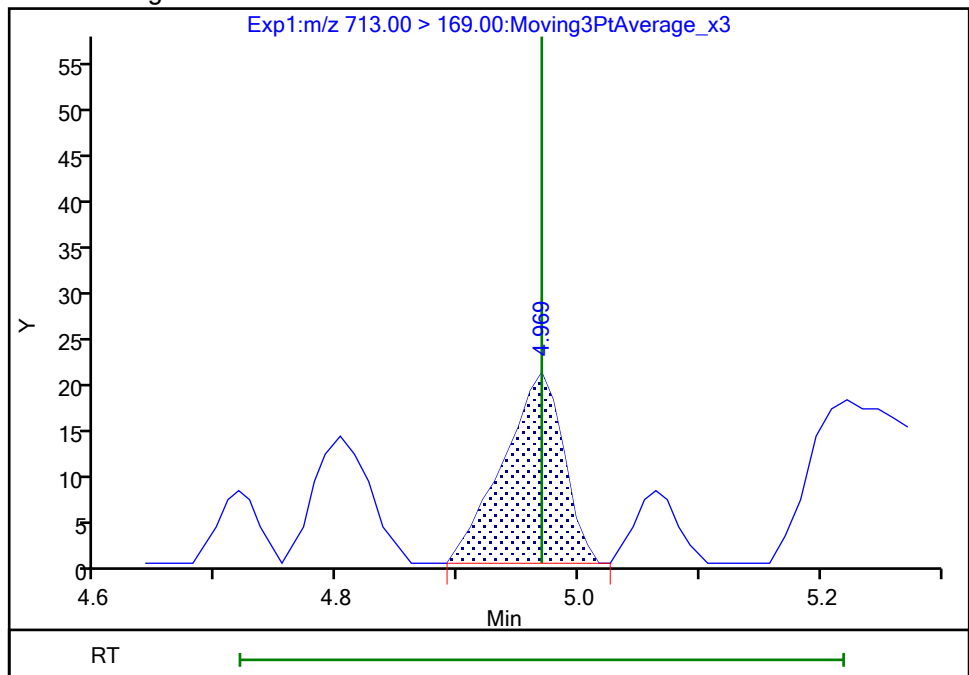
Signal: 1

Not Detected
Expected RT: 4.97

Processing Integration Results



Manual Integration Results



RT: 4.97
Area: 72
Amount: 0.003368
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:01:09

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

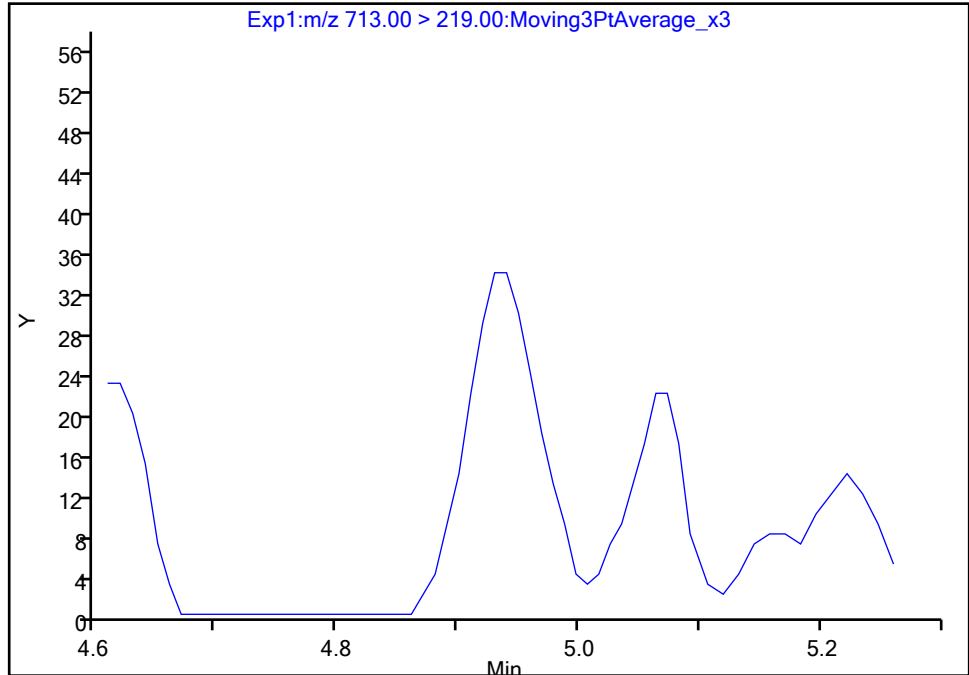
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d
Injection Date: 27-Oct-2020 20:07:08 Instrument ID: LC812
Lims ID: 480-176996-C-4-A Lab Sample ID: 200-176996-4
Client ID: B1243-W05
Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

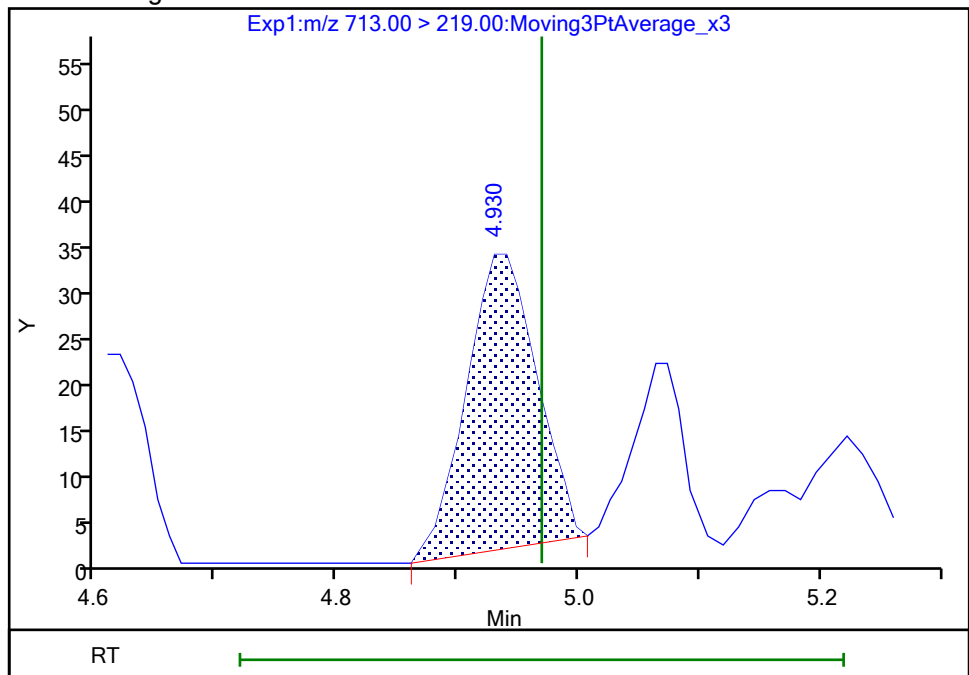
Not Detected
Expected RT: 4.97

Processing Integration Results



Manual Integration Results

RT: 4.93
Area: 131
Amount: 0.003368
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 10:01:12

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 322 of 906

Eurofins TestAmerica, Burlington

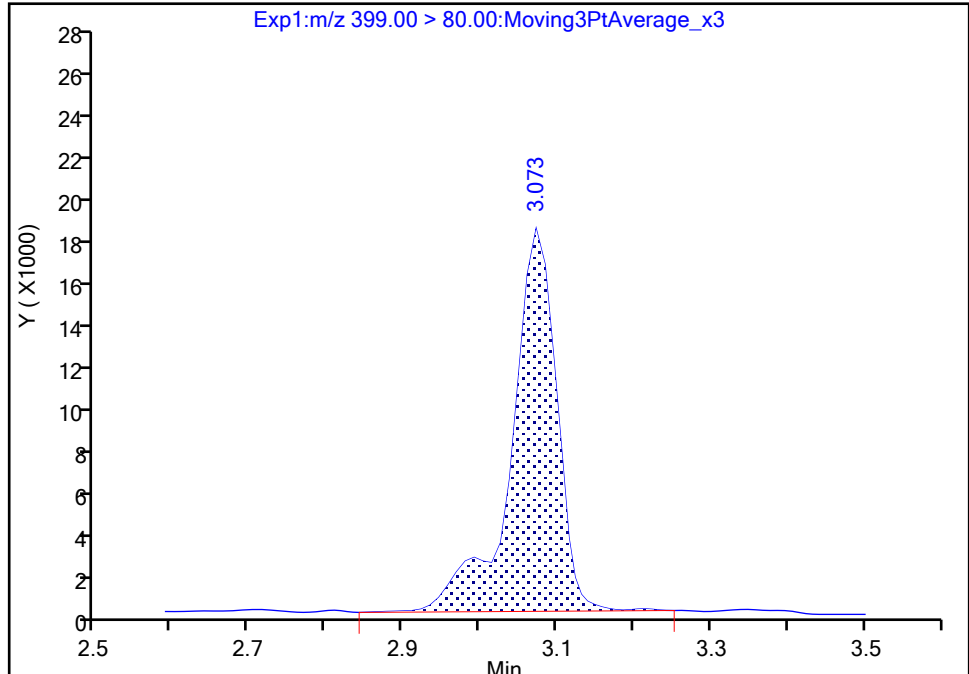
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d				
Injection Date:	27-Oct-2020 20:07:08	Instrument ID:	LC812		
Lims ID:	480-176996-C-4-A	Lab Sample ID:	200-176996-4		
Client ID:	B1243-W05				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	23
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

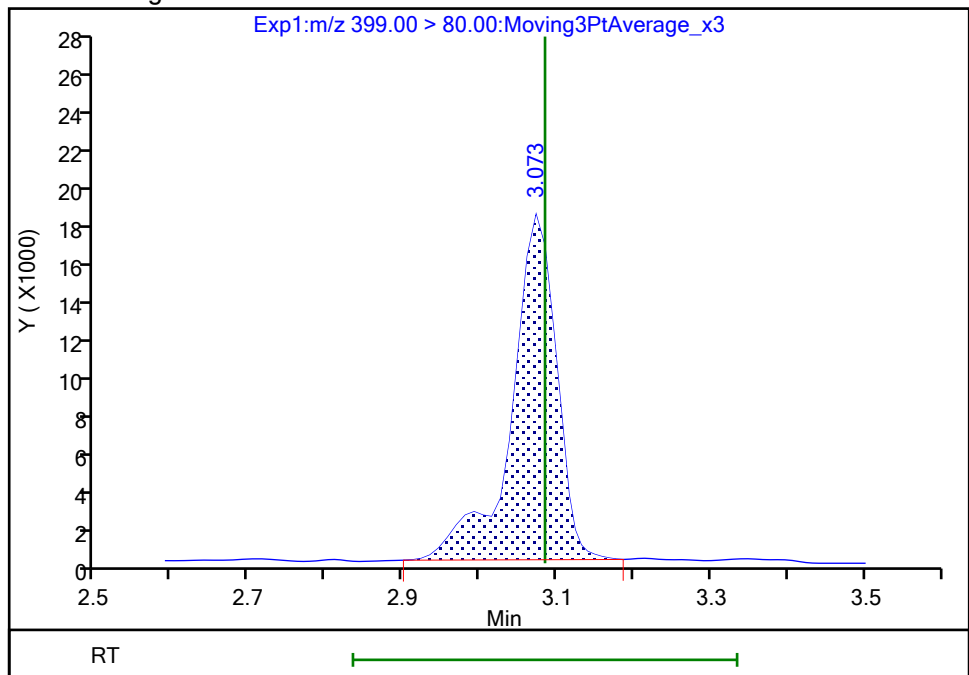
RT: 3.07
Area: 73982
Amount: 0.150380
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 73000
Amount: 0.148384
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:58:17

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

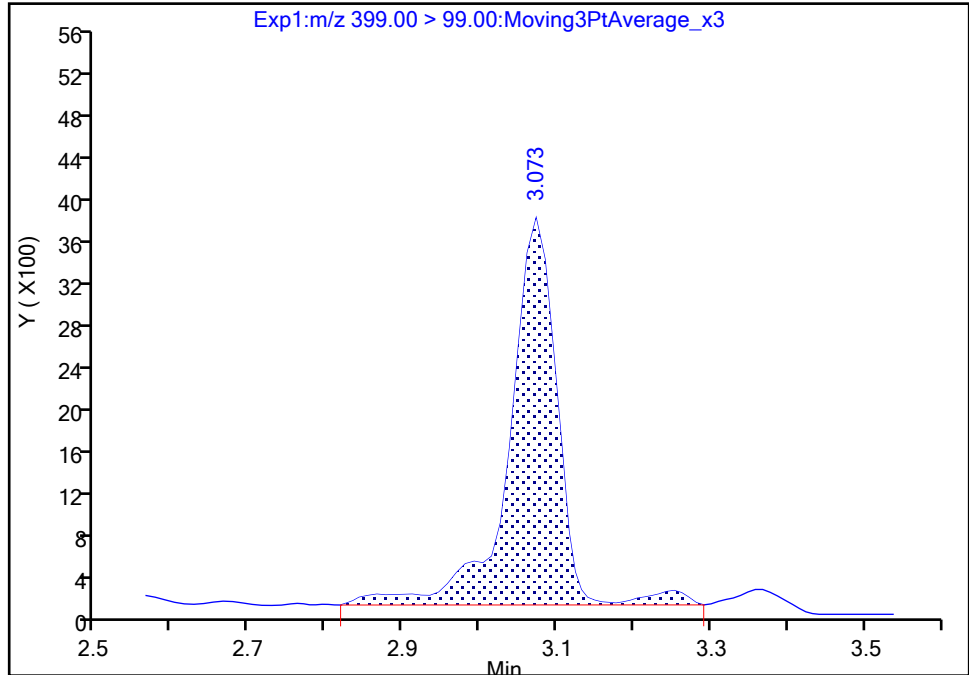
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d
Injection Date: 27-Oct-2020 20:07:08 Instrument ID: LC812
Lims ID: 480-176996-C-4-A Lab Sample ID: 200-176996-4
Client ID: B1243-W05
Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

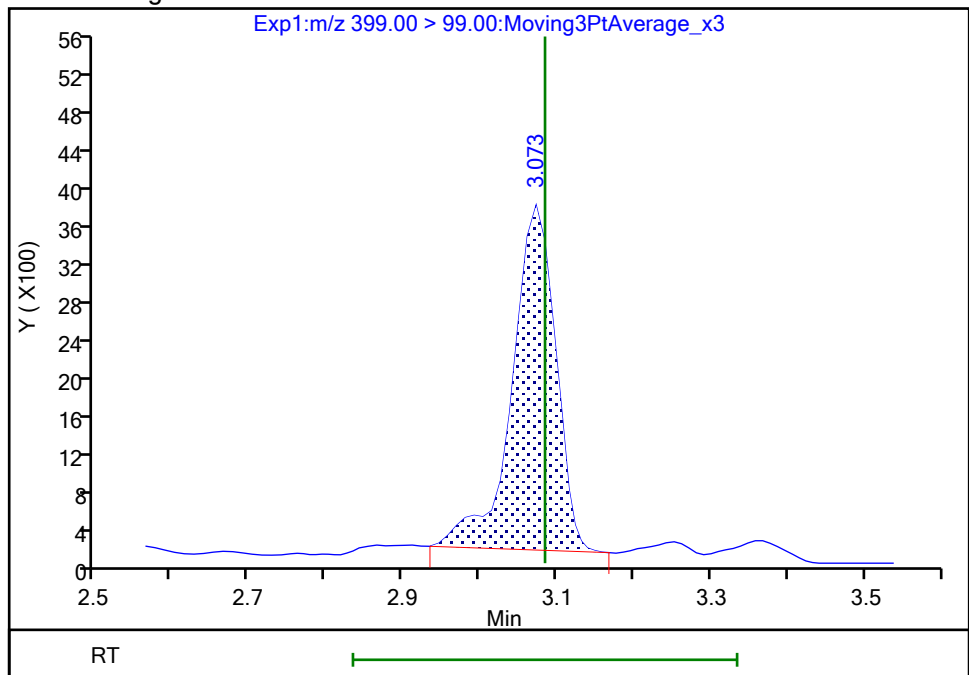
RT: 3.07
Area: 16329
Amount: 0.150380
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 14460
Amount: 0.148384
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:58:24

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

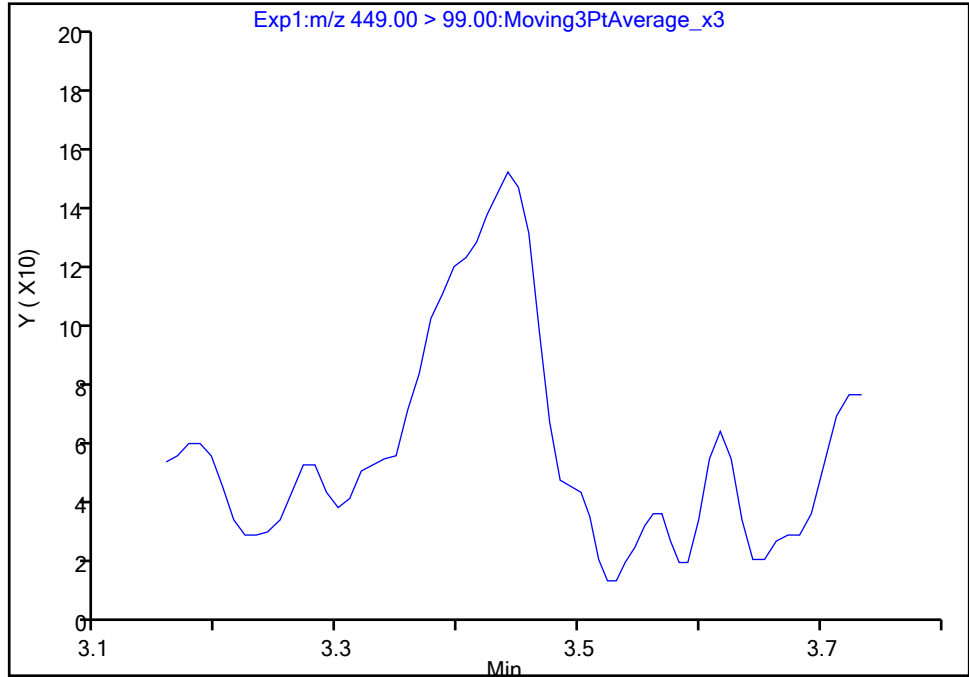
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d				
Injection Date:	27-Oct-2020 20:07:08	Instrument ID:	LC812		
Lims ID:	480-176996-C-4-A	Lab Sample ID:	200-176996-4		
Client ID:	B1243-W05				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	23
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

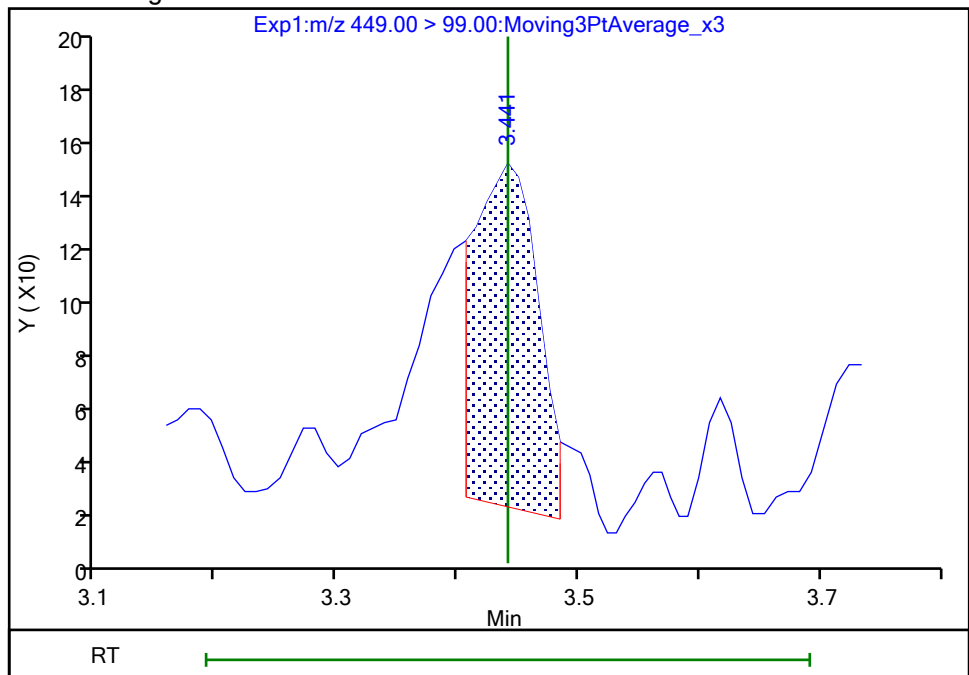
Signal: 2

Not Detected
Expected RT: 3.44

Processing Integration Results



Manual Integration Results



RT: 3.44
Area: 447
Amount: 0.007490
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 09:58:51

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

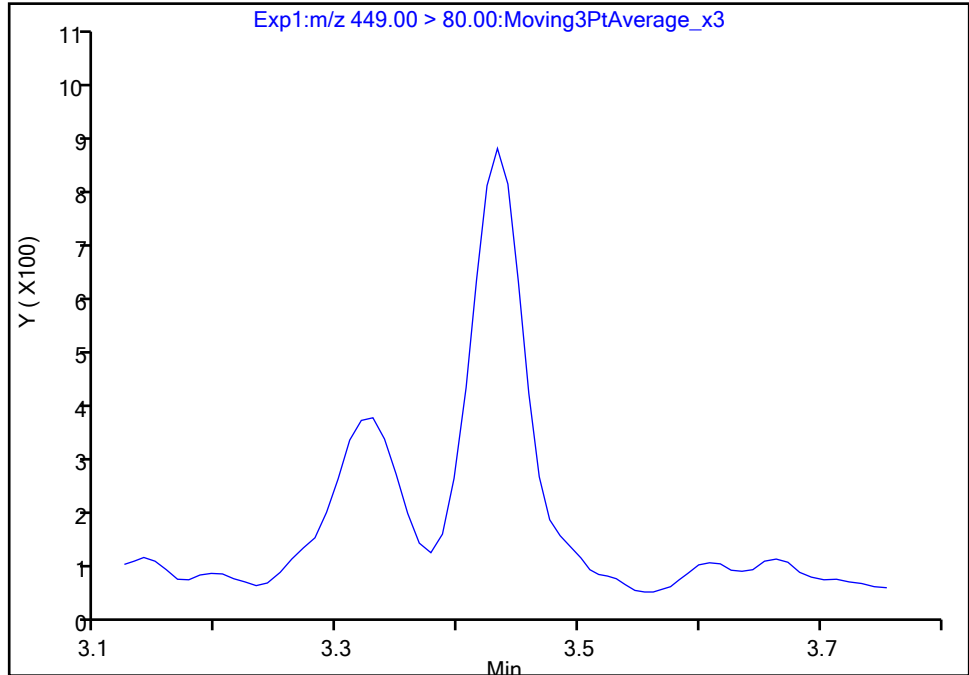
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d
Injection Date: 27-Oct-2020 20:07:08 Instrument ID: LC812
Lims ID: 480-176996-C-4-A Lab Sample ID: 200-176996-4
Client ID: B1243-W05
Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

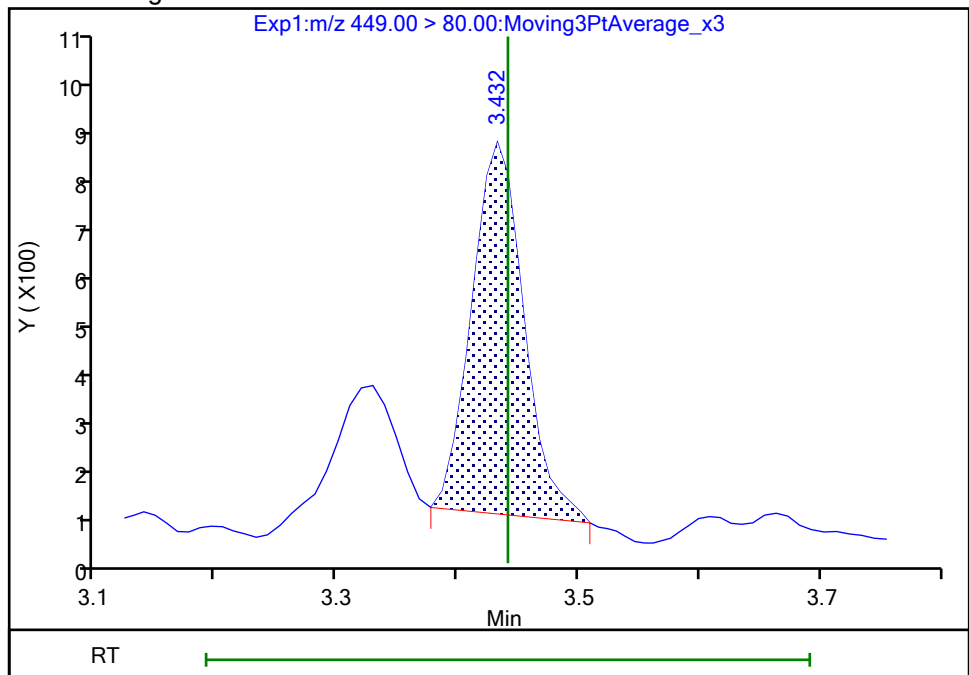
Not Detected
Expected RT: 3.44

Processing Integration Results



Manual Integration Results

RT: 3.43
Area: 2321
Amount: 0.007490
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 09:59:00

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

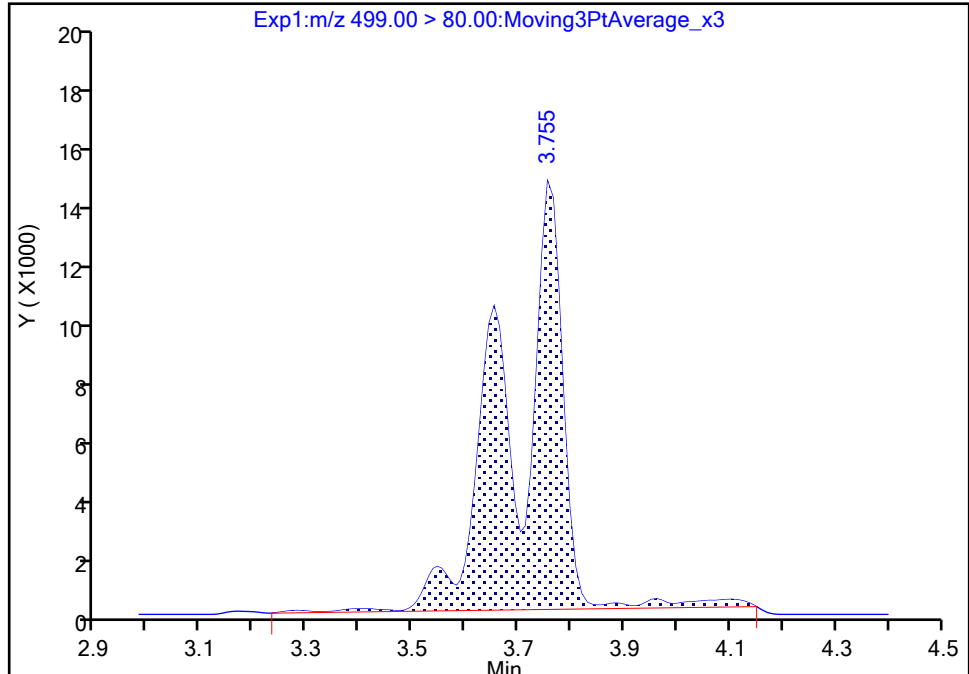
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d				
Injection Date:	27-Oct-2020 20:07:08	Instrument ID:	LC812		
Lims ID:	480-176996-C-4-A	Lab Sample ID:	200-176996-4		
Client ID:	B1243-W05				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	23
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

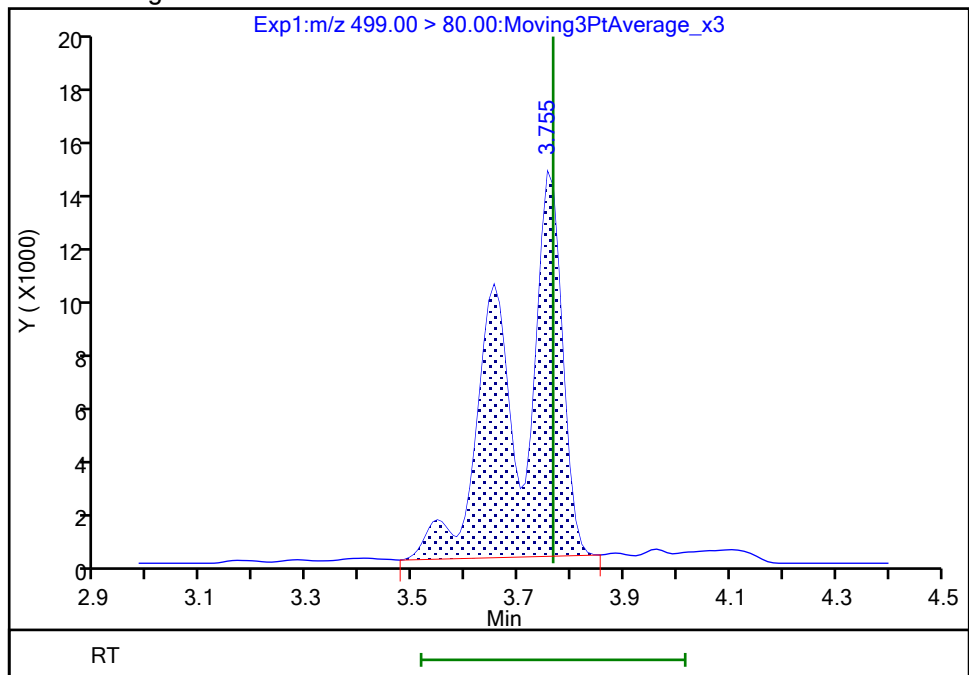
RT: 3.75
Area: 97412
Amount: 0.335147
Amount Units: ng/ml

Processing Integration Results



RT: 3.75
Area: 91973
Amount: 0.316434
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:59:24

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

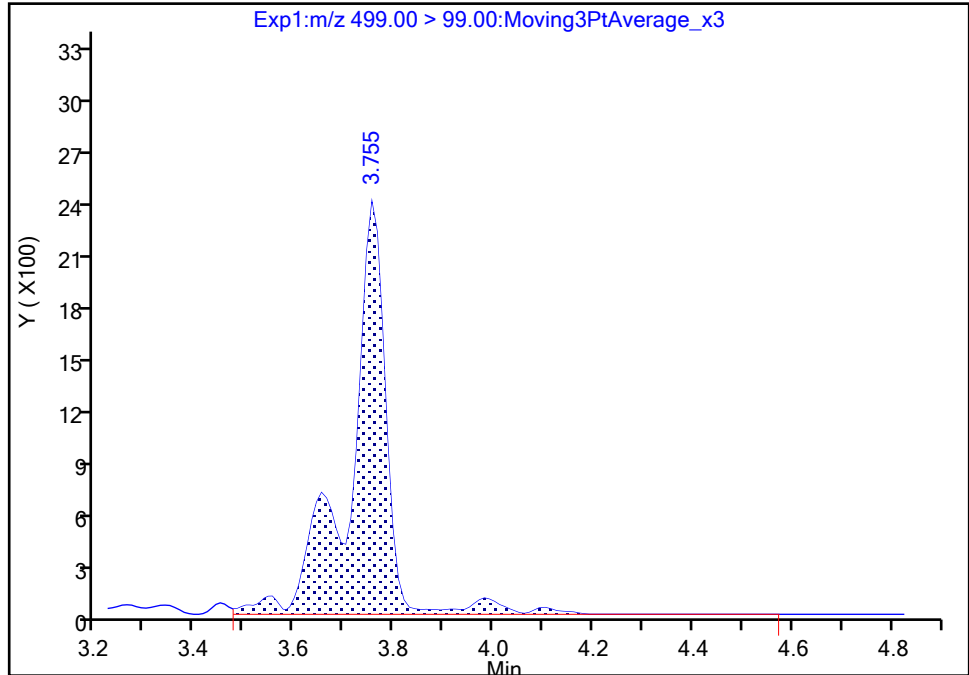
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d
Injection Date: 27-Oct-2020 20:07:08 Instrument ID: LC812
Lims ID: 480-176996-C-4-A Lab Sample ID: 200-176996-4
Client ID: B1243-W05
Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

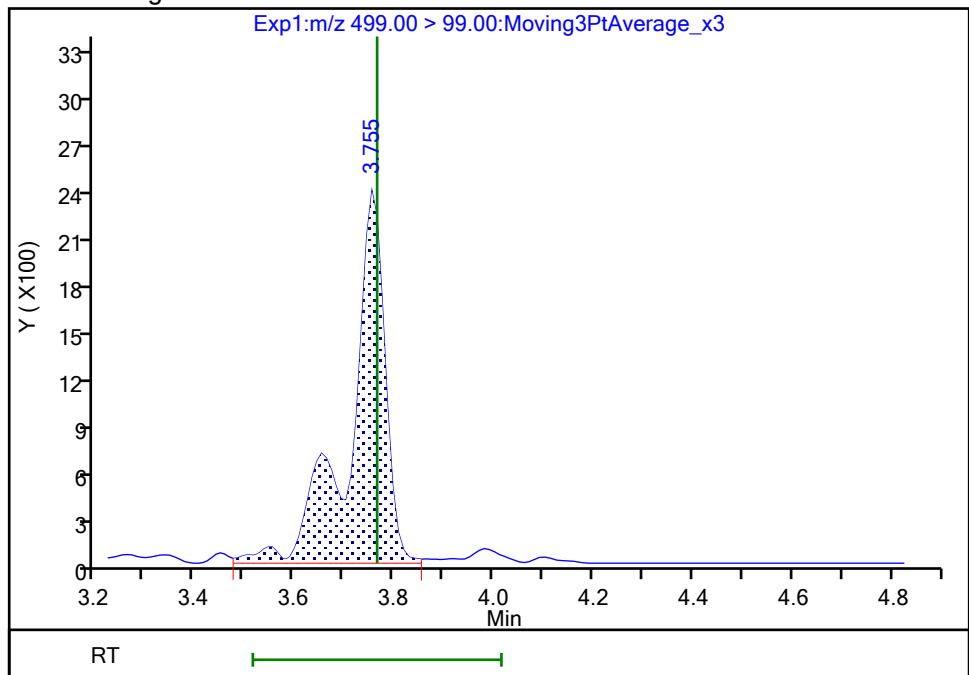
RT: 3.75
Area: 12240
Amount: 0.335147
Amount Units: ng/ml

Processing Integration Results



RT: 3.75
Area: 11605
Amount: 0.316434
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:59:31

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

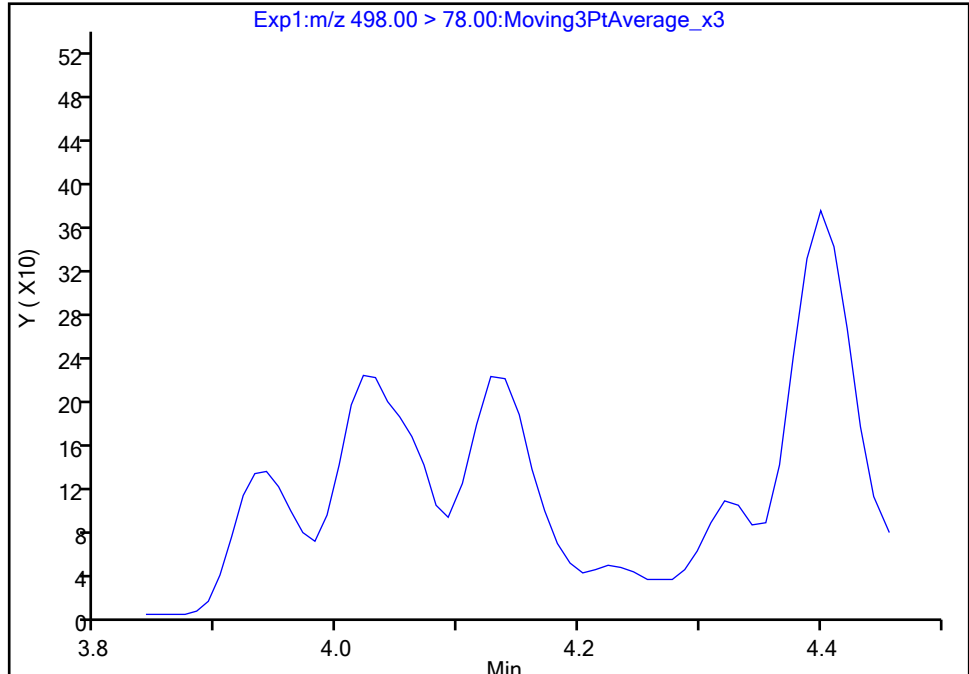
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d
Injection Date: 27-Oct-2020 20:07:08 Instrument ID: LC812
Lims ID: 480-176996-C-4-A Lab Sample ID: 200-176996-4
Client ID: B1243-W05
Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

22 Perfluorooctanesulfonamide, CAS: 754-91-6

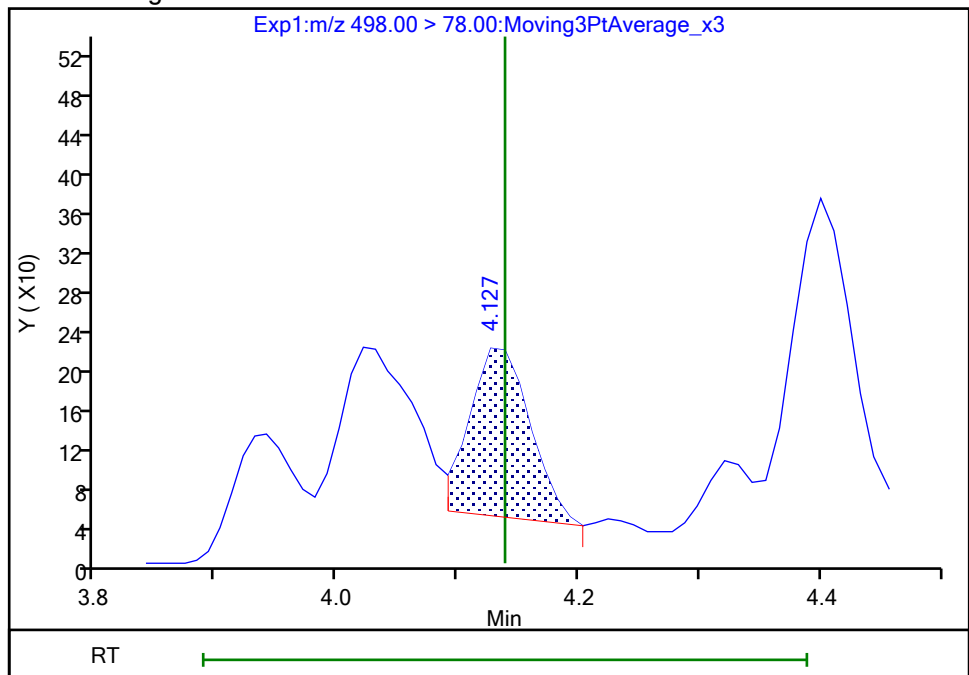
Signal: 1

Not Detected
Expected RT: 4.14

Processing Integration Results



Manual Integration Results



RT: 4.13
Area: 589
Amount: 0.001479
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:00:12

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

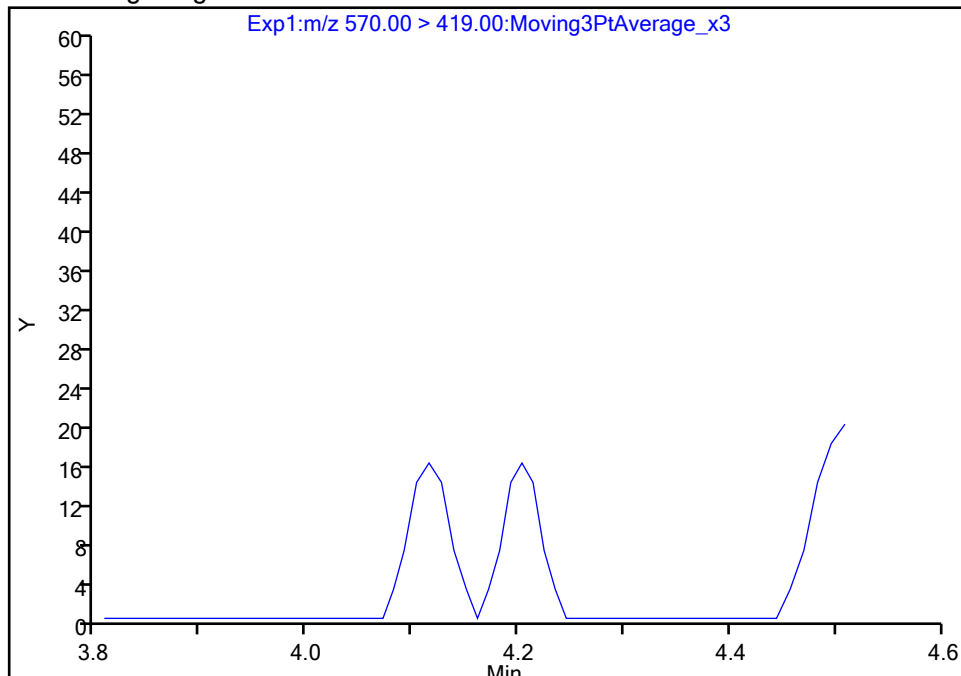
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d
Injection Date: 27-Oct-2020 20:07:08 Instrument ID: LC812
Lims ID: 480-176996-C-4-A Lab Sample ID: 200-176996-4
Client ID: B1243-W05
Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

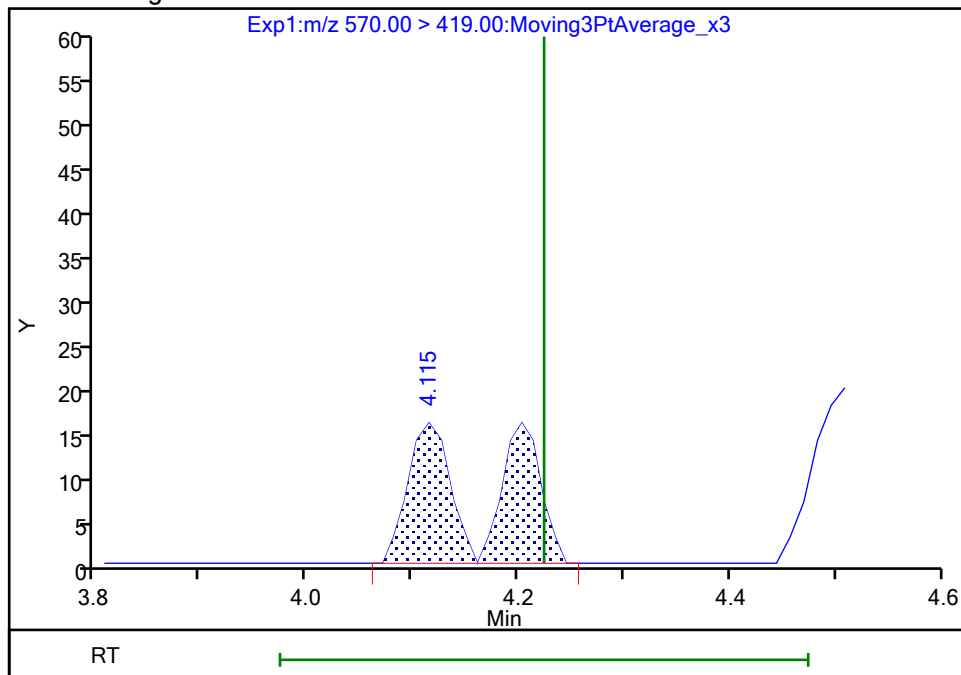
Signal: 1

Not Detected
Expected RT: 4.22

Processing Integration Results



Manual Integration Results



RT: 4.12
Area: 84
Amount: 0.008057
Amount Units: ng/ml

Reviewer: chirgwinb, 28-Oct-2020 13:02:36
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 330 of 906

Eurofins TestAmerica, Burlington

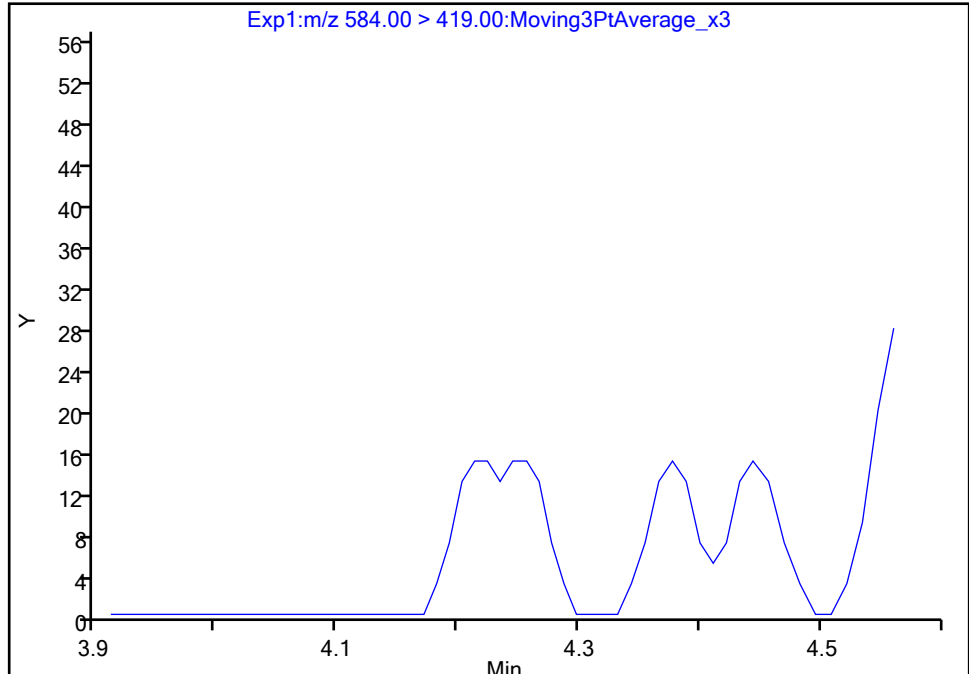
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d
Injection Date: 27-Oct-2020 20:07:08 Instrument ID: LC812
Lims ID: 480-176996-C-4-A Lab Sample ID: 200-176996-4
Client ID: B1243-W05
Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

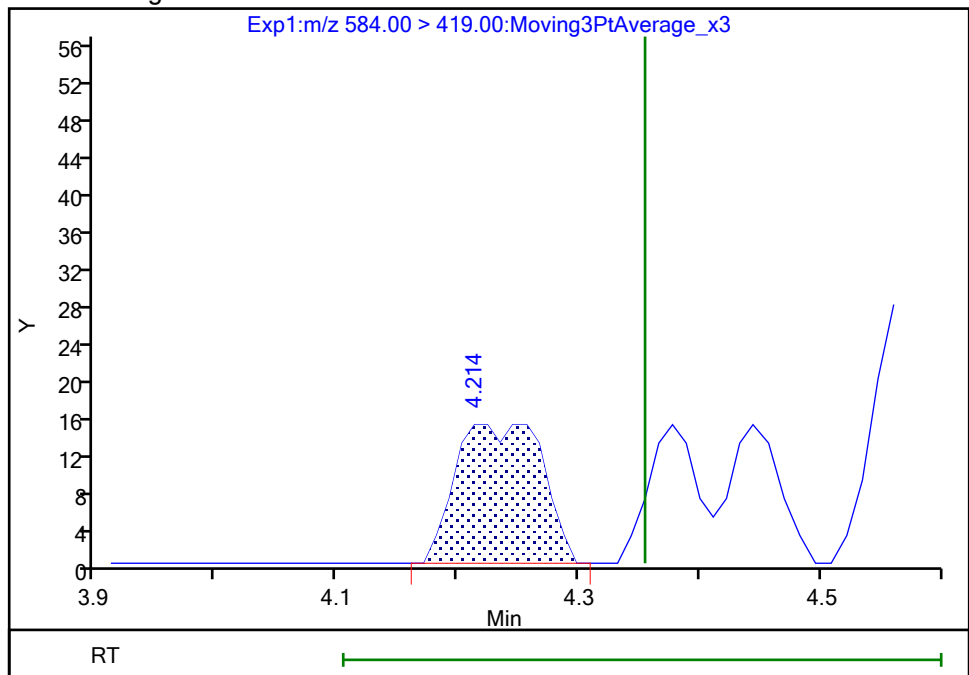
Not Detected
Expected RT: 4.35

Processing Integration Results



RT: 4.21
Area: 75
Amount: 0.008017
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 13:02:58
Audit Action: Manually Integrated

Audit Reason: Missed Peak
Page 331 of 906

Eurofins TestAmerica, Burlington

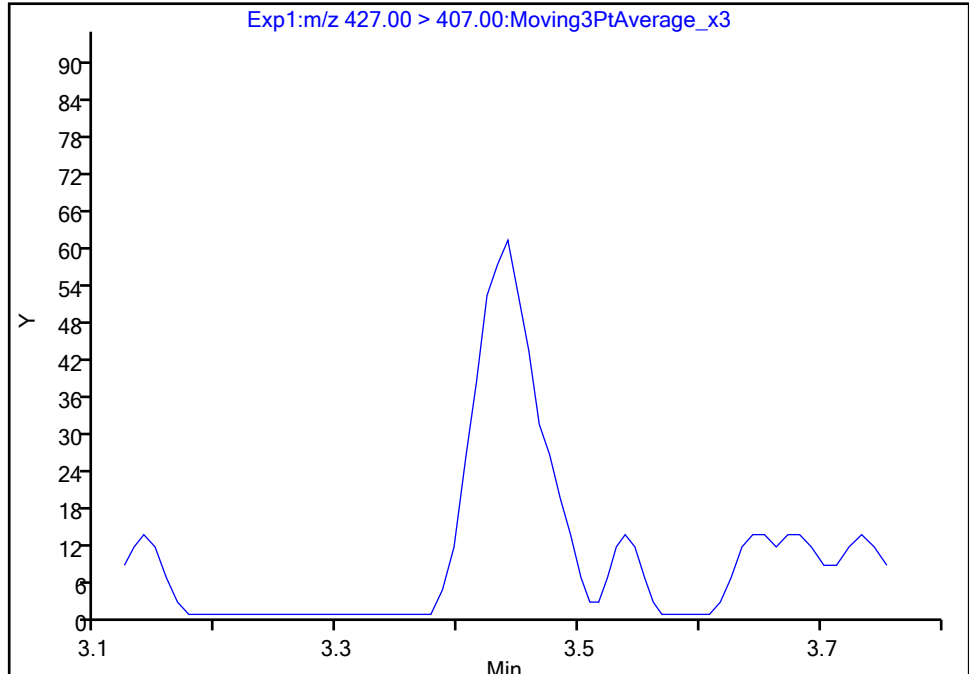
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d
Injection Date: 27-Oct-2020 20:07:08 Instrument ID: LC812
Lims ID: 480-176996-C-4-A Lab Sample ID: 200-176996-4
Client ID: B1243-W05
Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

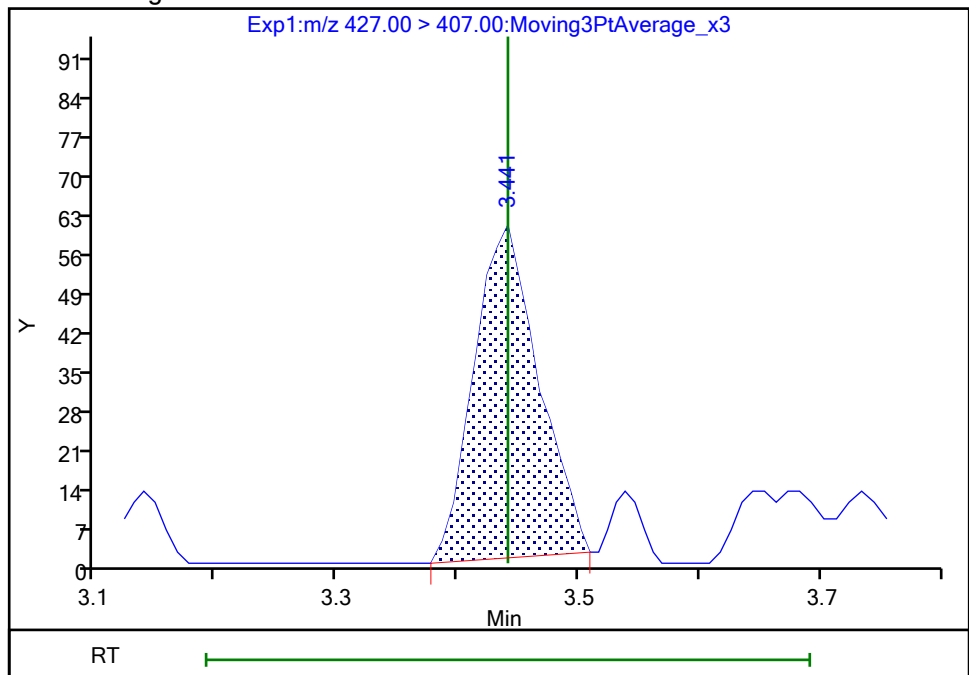
Not Detected
Expected RT: 3.44

Processing Integration Results



RT: 3.44
Area: 222
Amount: 0.004486
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:59:06

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

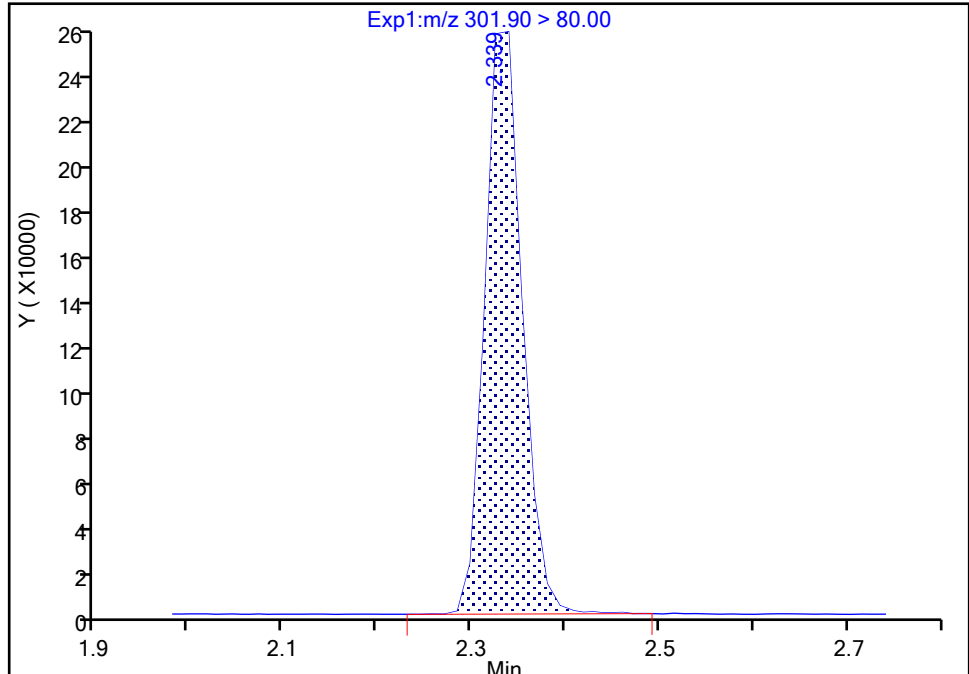
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A23.d				
Injection Date:	27-Oct-2020 20:07:08	Instrument ID:	LC812		
Lims ID:	480-176996-C-4-A	Lab Sample ID:	200-176996-4		
Client ID:	B1243-W05				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	23
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

D 47 13C3 PFBS, CAS: STL02337

Signal: 1

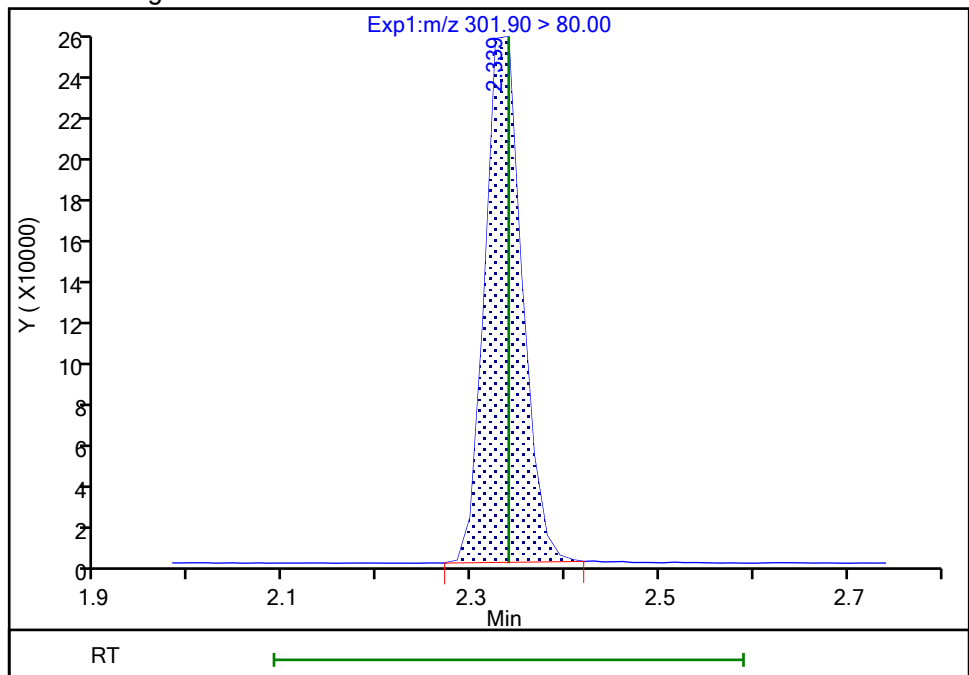
RT: 2.34
Area: 702924
Amount: 1.088113
Amount Units: ng/ml

Processing Integration Results



RT: 2.34
Area: 698295
Amount: 1.080948
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:57:24

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1

SDG No.: _____

Client Sample ID: MW-1253 IR Lab Sample ID: 480-176996-5

Matrix: Water Lab File ID: PA201027A24.d

Analysis Method: 537 (modified) Date Collected: 10/21/2020 13:15

Extraction Method: 3535 Date Extracted: 10/27/2020 09:15

Sample wt/vol: 294.7 (mL) Date Analyzed: 10/27/2020 20:15

Con. Extract Vol.: 10 (mL) Dilution Factor: 1

Injection Volume: 20 (uL) GC Column: C-18 ID: 4.6 (mm)

% Moisture: _____ GPC Cleanup: (Y/N) N

Analysis Batch No.: 160481 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.2	0.96
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		1.7	0.92
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		1.7	0.70
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.7	0.39
335-67-1	Perfluorooctanoic acid (PFOA)	ND		1.7	0.83
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.7	0.49
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.7	0.39
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.62
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.7	0.39
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.36
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.50
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.53
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.57
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.33
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1.8		1.7	0.74
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.41
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.48
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.2	0.67
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.2	0.79
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.1	J	4.2	0.61
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.56

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Client Sample ID: MW-1253 IR Lab Sample ID: 480-176996-5
 Matrix: Water Lab File ID: PA201027A24.d
 Analysis Method: 537 (modified) Date Collected: 10/21/2020 13:15
 Extraction Method: 3535 Date Extracted: 10/27/2020 09:15
 Sample wt/vol: 294.7 (mL) Date Analyzed: 10/27/2020 20:15
 Con. Extract Vol.: 10 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: C-18 ID: 4.6 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 160481 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	102		50-150
STL01892	13C4 PFHpA	102		50-150
STL00990	13C4 PFOA	95		50-150
STL00991	13C4 PFOS	96		50-150
STL00995	13C5 PFNA	94		50-150
STL00992	13C4 PFBA	96		25-150
STL00993	13C2 PFHxA	100		50-150
STL00996	13C2 PFDA	86		50-150
STL00997	13C2 PFUnA	89		50-150
STL00998	13C2 PFDoA	61		50-150
STL01056	13C8 FOSA	83		25-150
STL01893	13C5 PFPeA	102		25-150
STL02116	13C2 PFTeDA	59		50-150
STL02118	d3-NMeFOSAA	74		50-150
STL02117	d5-NEtFOSAA	82		50-150
STL02279	M2-6:2 FTS	109		25-150
STL02280	M2-8:2 FTS	101		25-150
STL02337	13C3 PFBS	96		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A24.d
 Lims ID: 480-176996-C-5-A
 Client ID: MW-1253 IR
 Sample Type: Client
 Inject. Date: 27-Oct-2020 20:15:26 ALS Bottle#: 21 Worklist Smp#: 24
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: 480-176996-C-5-A
 Misc. Info.: 200-0043412-024 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Method: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 28-Oct-2020 13:19:45 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1652

First Level Reviewer: khanphomeea

Date: 28-Oct-2020 10:07:34

Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.981	1.981	0.0	0.574	931349	1.20		96.2	13151	
2 Perfluorobutanoic acid										M
212.90 > 169.00	1.981	1.990	-0.009	1.000	14986	0.0215			4.6	M
D 3 13C5 PFPeA										
267.90 > 223.00	2.312	2.326	-0.014	0.670	709598	1.28		102	2291	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.312	2.326	-0.014	1.000	3432	0.005725			0.2	M
D 47 13C3 PFBS										M
301.90 > 80.00	2.339	2.339	0.0	0.678	756585	1.12		96.2	33334	M
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.339	2.353	-0.014	1.000	9913	0.0153	Target=2.07		2.0	
298.90 > 99.00	2.339	2.353	-0.014	1.000	5902		1.68(1.04-3.11)		3.0	
D 7 13C2 PFHxA										
315.00 > 270.00	2.691	2.703	-0.012	0.780	714864	1.25		100	4224	
D 11 18O2 PFHxS										
403.00 > 84.00	3.073	3.084	-0.011	0.891	584851	1.21		102	3108	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.073	3.084	-0.011	1.000	8097	0.0148	Target=4.60		6.1	M
399.00 > 99.00	3.073	3.084	-0.011	1.000	2235		3.62(2.30-6.91)		3.9	M
D 9 13C4 PFHpA										
367.00 > 322.00	3.084	3.084	0.0	0.894	665469	1.28		102	3357	
10 Perfluoroheptanoic acid										M
363.00 > 319.00	3.084	3.084	0.0	1.000	3165	0.005933	Target=3.34		0.6	M
363.00 > 169.00	3.084	3.084	0.0	1.000	1248		2.54(1.67-5.01)		4.3	M
16 Perfluoroheptanesulfonic acid										RM
449.00 > 80.00	3.433	3.441	-0.008	0.912	930	0.002099	Target=7.08		2.0	RM
449.00 > 99.00	3.424	3.441	-0.017	0.909	349		2.66(3.54-10.63)		2.3	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2 FTS										
429.00 > 81.00	3.441	3.441	0.0	0.997	83900	1.29		109	175	
13 1H,1H,2H,2H-perfluorooctanesulfo										M
427.00 > 407.00	3.433	3.441	-0.008	0.997	1888	0.0335			46.8	M
D 14 13C4 PFOA										
417.00 > 372.00	3.450	3.450	0.0	1.000	630228	1.18		94.7	3602	
* 62 13C2 PFOA										
415.00 > 370.00	3.450	3.450	0.0		675943	1.25			3772	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.441	3.458	-0.017	0.997	7801	0.0150	Target=2.29		2.2	M
413.00 > 169.00	3.441	3.458	-0.017	0.997	3220		2.42(1.14-3.43)		9.9	M
D 18 13C4 PFOS										
503.00 > 80.00	3.765	3.765	0.0	1.091	456974	1.15		96.3	787	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.654	3.765	-0.111	0.970	22058	0.0531	Target=7.10		9.5	M
499.00 > 99.00	3.755	3.765	-0.010	0.997	2844		7.76(3.55-10.64)		9.8	M
D 19 13C5 PFNA										
468.00 > 423.00	3.786	3.786	0.0	1.098	526669	1.17		93.9	4423	
20 Perfluorononanoic acid										M
463.00 > 419.00	3.786	3.786	0.0	1.000	3090	0.007202	Target=5.83		1.2	M
463.00 > 169.00	3.765	3.786	-0.021	0.994	568		5.44(2.91-8.74)		10.7	M
D 23 13C2 PFDA										
515.00 > 470.00	4.072	4.082	-0.010	1.180	464988	1.08		86.5	4998	
24 Perfluorodecanoic acid										M
513.00 > 469.00	4.072	4.082	-0.010	1.000	1376	0.003739	Target=6.81		1.6	M
513.00 > 169.00	4.082	4.082	0.0	1.002	216		6.37(3.41-10.22)		2.4	M
D 26 M2-8:2 FTS										
529.00 > 81.00	4.082	4.092	-0.010	1.183	92427	1.21		101	201	
25 1H,1H,2H,2H-perfluorodecanesulfo										M
527.00 > 507.00	4.092	4.092	0.0	1.002	81	0.002651			3.0	M
D 21 13C8 FOSA										
506.00 > 78.00	4.139	4.139	0.0	1.200	715714	1.03		82.6	3354	
22 Perfluorooctanesulfonamide										M
498.00 > 78.00	4.139	4.139	0.0	1.000	1003	0.001874			7.0	M
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.214	4.214	0.0	1.221	22578	0.9218		73.7	568	
D 30 13C2 PFUnA										
565.00 > 520.00	4.332	4.343	-0.011	1.256	361602	1.11		89.1	3840	
31 Perfluoroundecanoic acid										M
563.00 > 519.00	4.332	4.343	-0.011	1.000	578	0.002026	Target=6.57		1.0	M
563.00 > 169.00	4.332	4.343	-0.011	1.000	71		8.14(3.28-9.85)		1.7	M
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.343	4.343	0.0	1.259	26891	1.02		81.7	608	
D 36 13C2 PFDaA										
615.00 > 570.00	4.561	4.561	0.0	1.322	263856	0.7687		61.5	2851	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
37 Perfluorododecanoic acid										RM
613.00 > 569.00	4.561	4.561	0.0	1.000	768	0.003731	Target=5.16		0.9	RM
613.00 > 169.00	4.573	4.561	0.012	1.003	74		10.38(2.58-7.75)		1.8	M
41 Perfluorotridecanoic acid										RM
663.00 > 619.00	4.754	4.772	-0.018	1.042	535	0.003060	Target=3.30		0.9	RM
663.00 > 169.00	4.718	4.772	-0.054	1.035	44		12.16(1.65-4.95)		1.4	M
D 43 13C2 PFTeDA										
715.00 > 670.00	4.959	4.969	-0.010	1.438	180813	0.7395		59.2	2719	
42 Perfluorotetradecanoic acid										RM
713.00 > 169.00	4.940	4.969	-0.029	0.996	59	0.001781	Target=1.06		2.2	RM
713.00 > 219.00	4.950	4.969	-0.019	0.998	118		0.50(0.53-1.59)		7.8	M

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A24.d

Injection Date: 27-Oct-2020 20:15:26

Instrument ID: LC812

Lims ID: 480-176996-C-5-A

Lab Sample ID: 200-176996-5

Client ID: MW-1253 IR

Operator ID: lc812tech

ALS Bottle#: 21

Worklist Smp#: 24

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

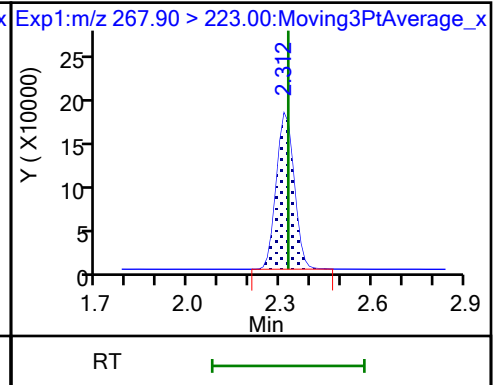
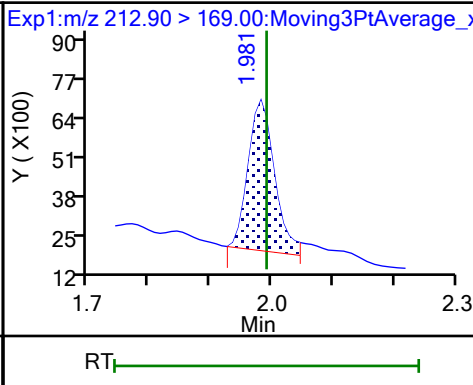
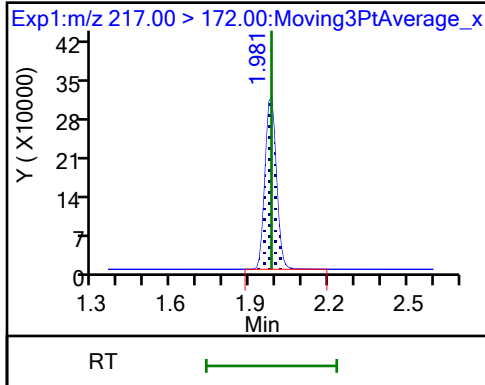
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid (M)

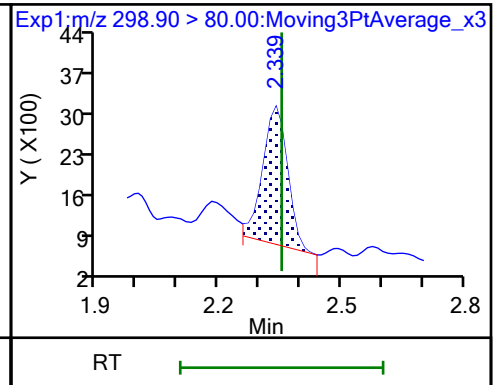
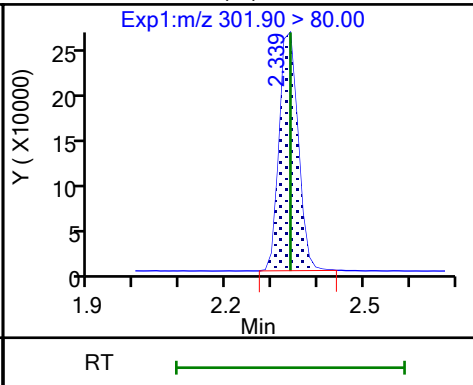
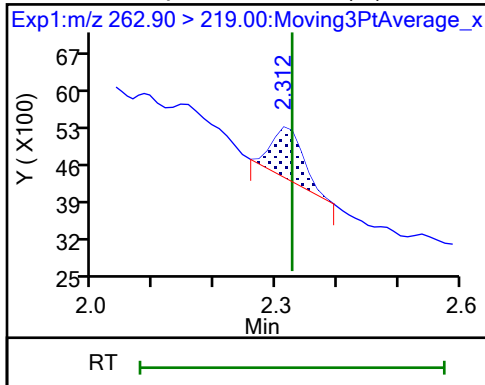
D 3 13C5 PFPeA



4 Perfluoropentanoic acid (M)

D 47 13C3 PFBS (M)

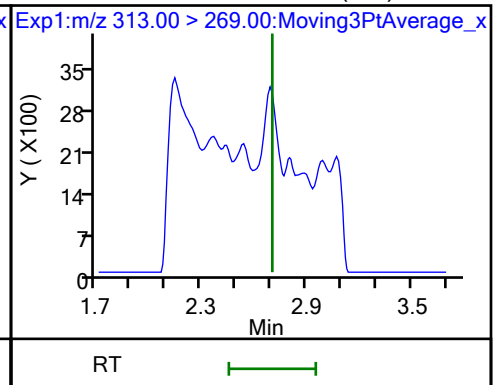
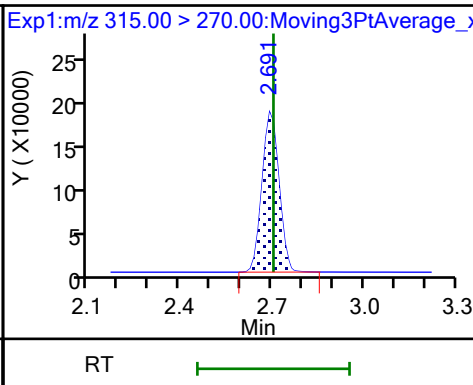
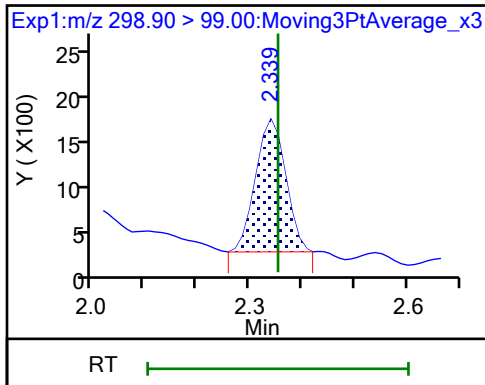
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

D 7 13C2 PFHxA

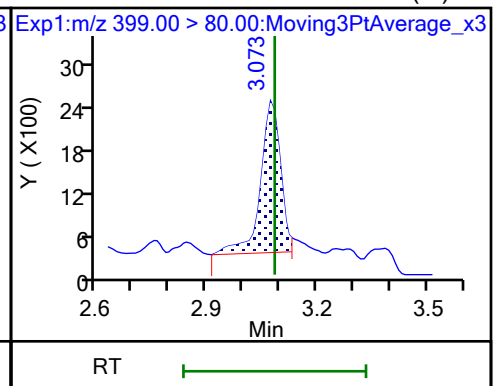
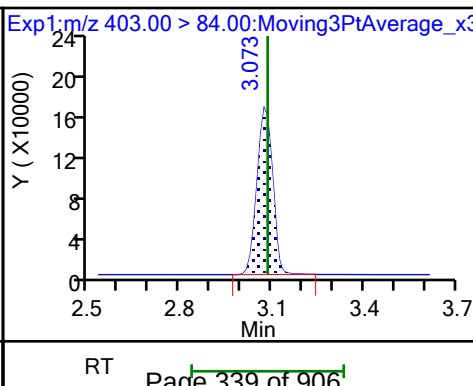
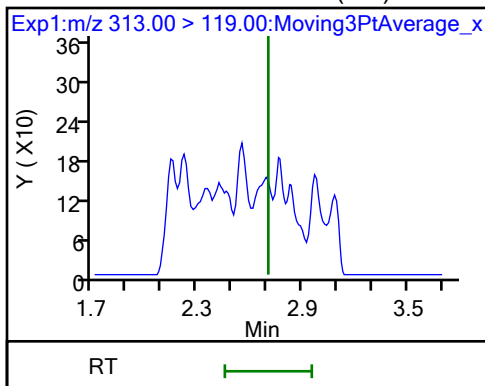
6 Perfluorohexanoic acid (ND)

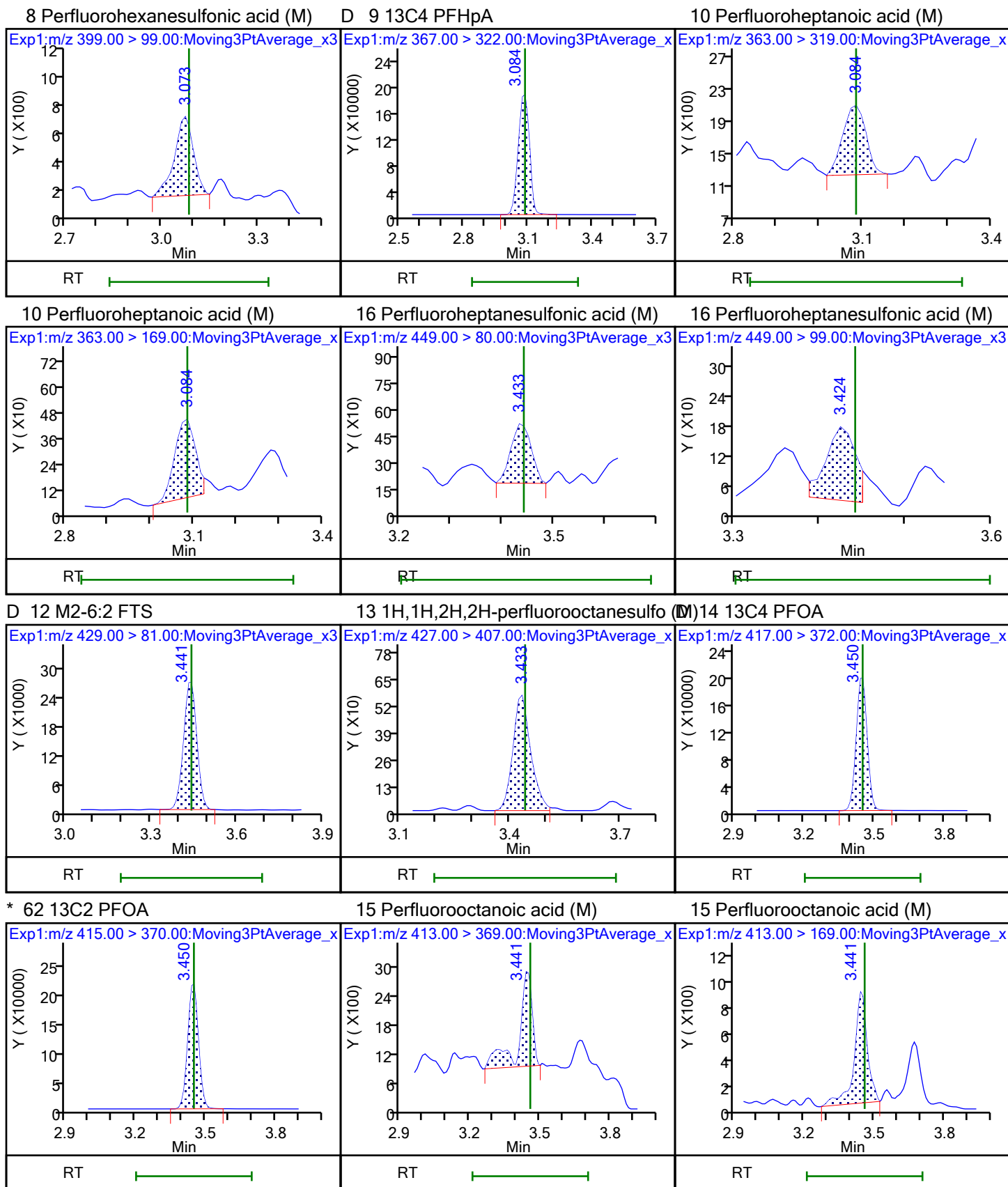


6 Perfluorohexanoic acid (ND)

D 11 18O2 PFHxS

8 Perfluorohexanesulfonic acid (M)

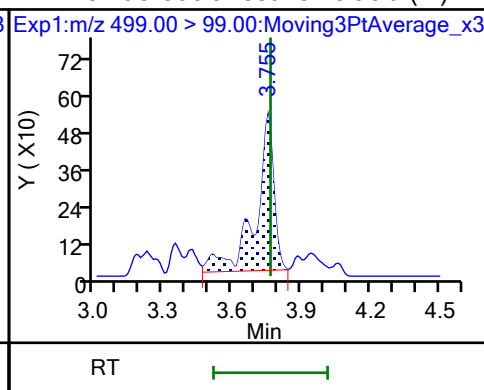
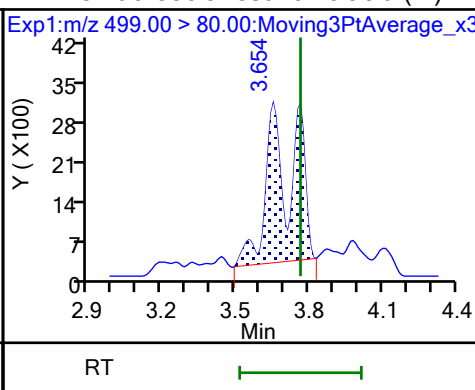
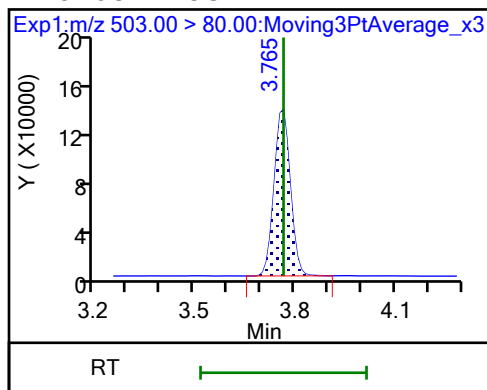




D 18 13C4 PFOS

17 Perfluorooctanesulfonic acid (M)

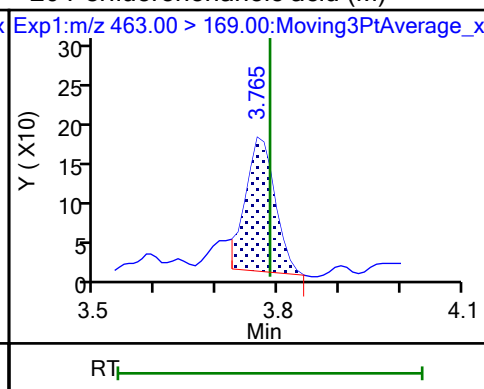
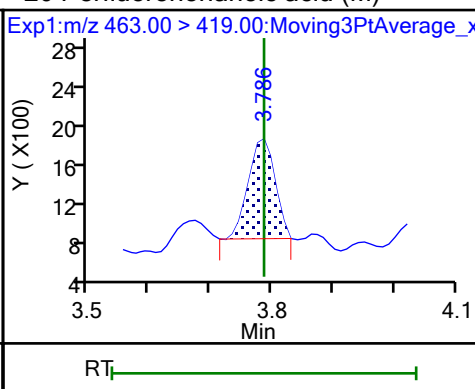
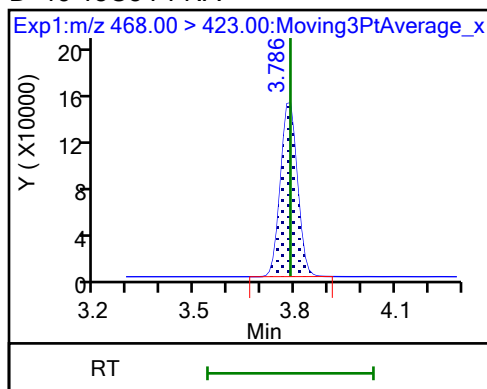
17 Perfluorooctanesulfonic acid (M)



D 19 13C5 PFNA

20 Perfluorononanoic acid (M)

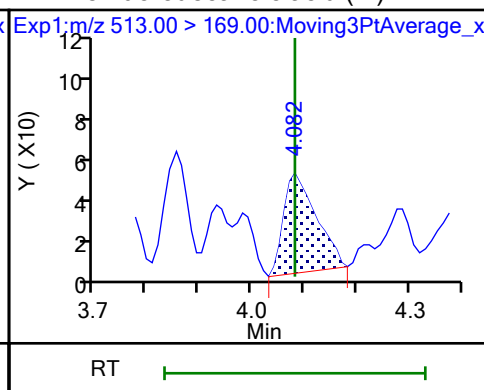
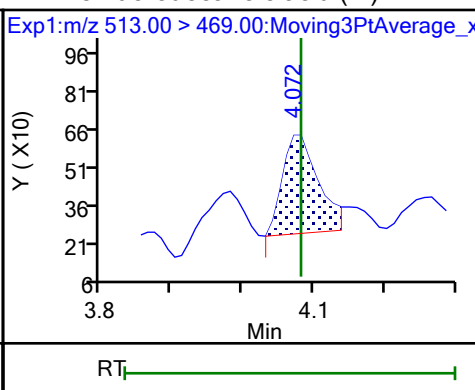
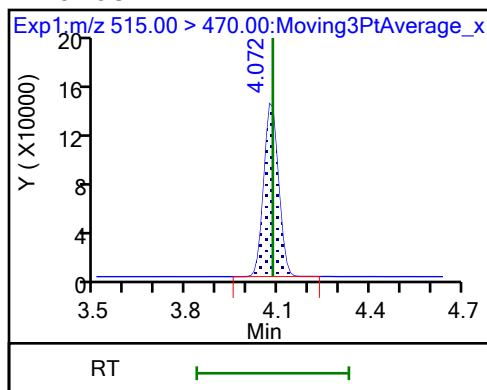
20 Perfluorononanoic acid (M)



D 23 13C2 PFDA

24 Perfluorodecanoic acid (M)

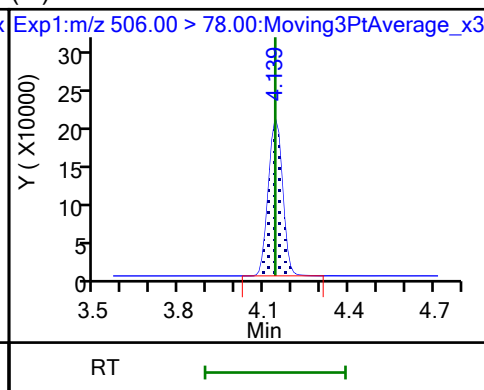
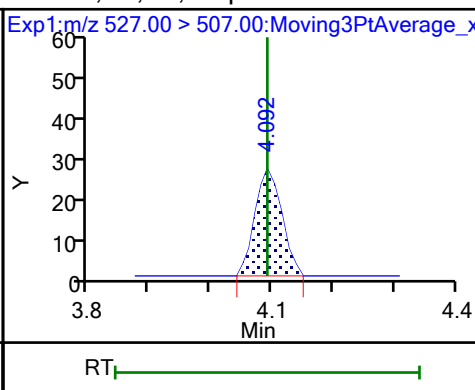
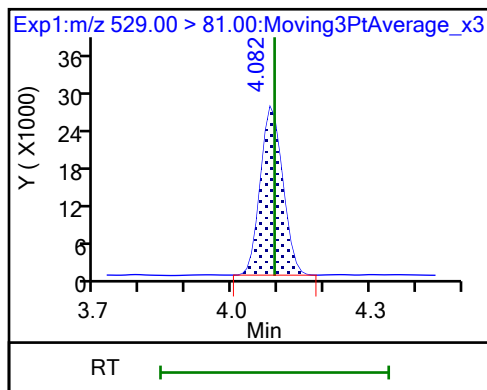
24 Perfluorodecanoic acid (M)

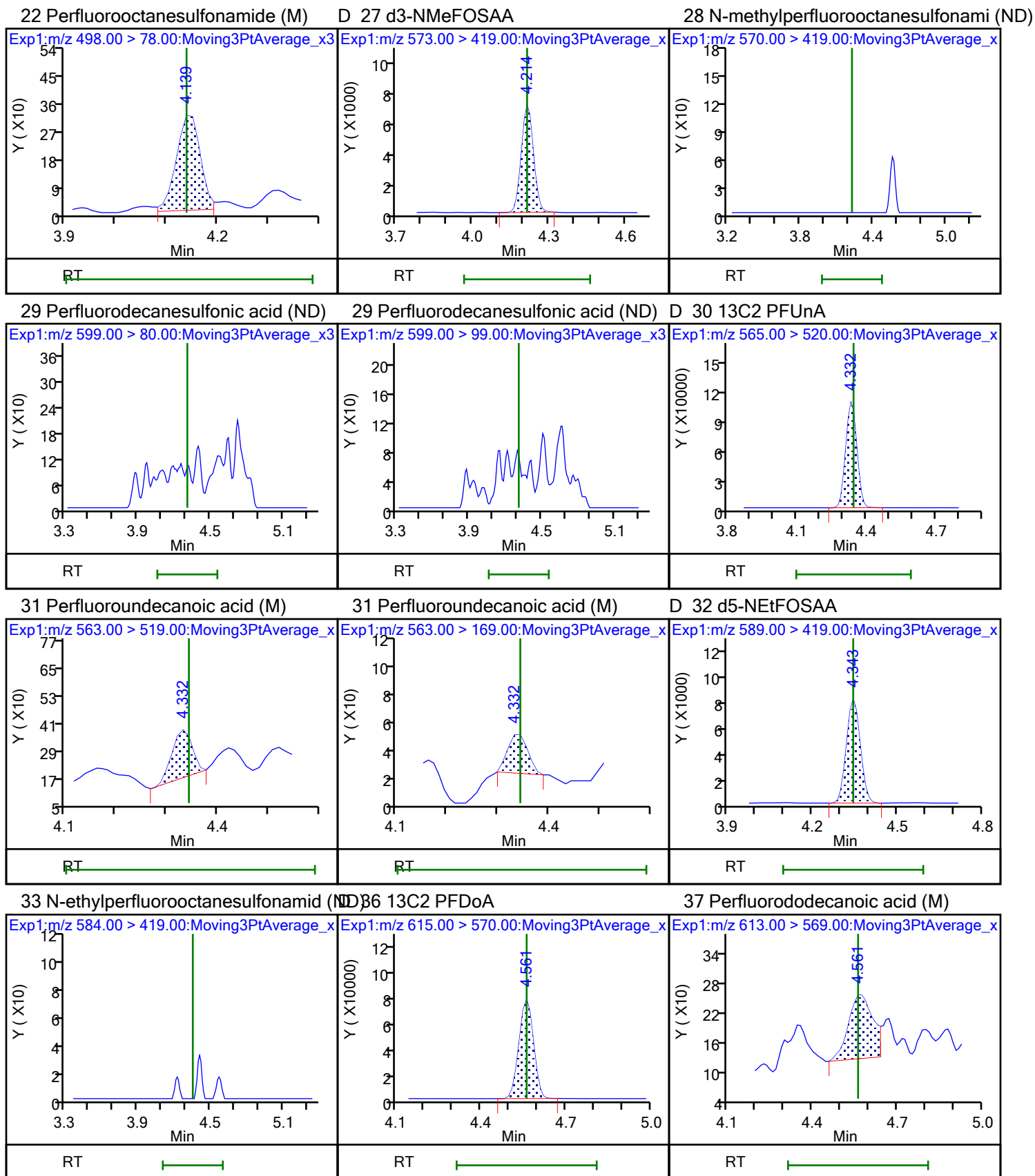


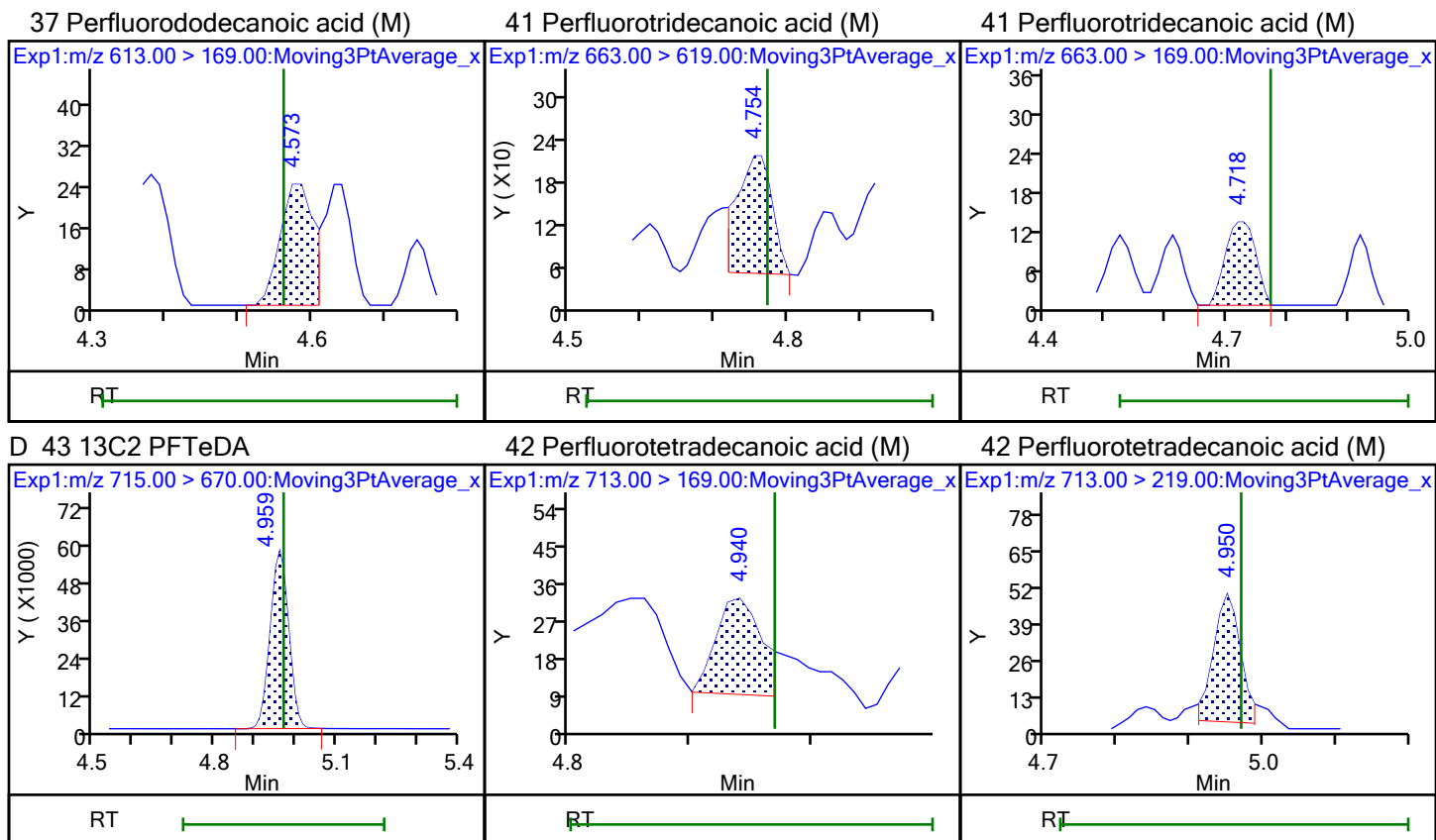
D 26 M2-8:2 FTS

25 1H,1H,2H,2H-perfluorodecanesulfonic acid (M)

21 13C8 FOSA







Eurofins TestAmerica, Burlington

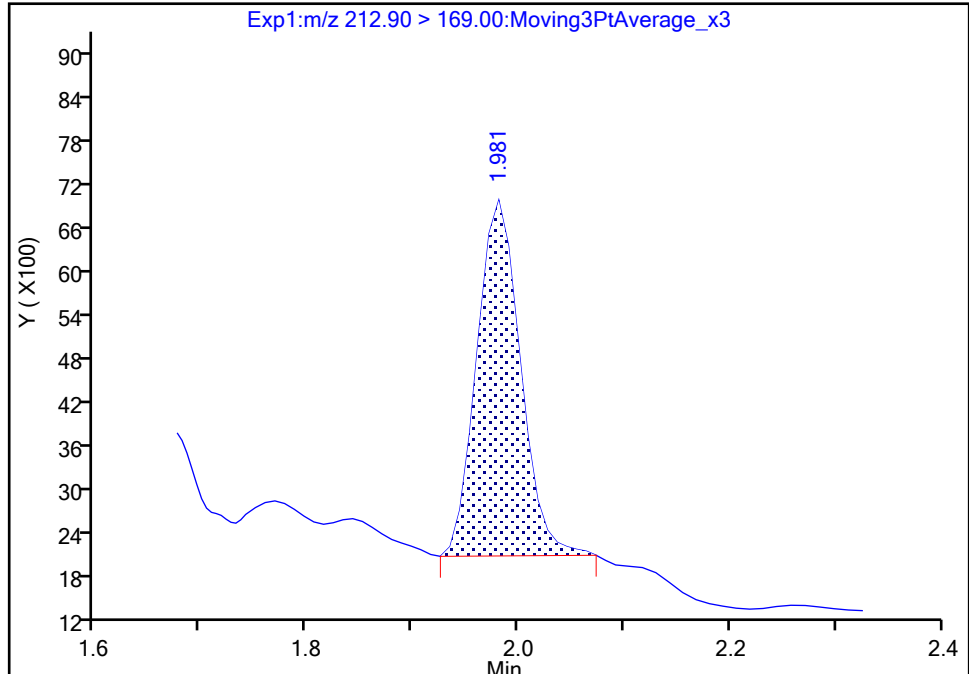
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Injection Date: 27-Oct-2020 20:15:26 Instrument ID: LC812
Lims ID: 480-176996-C-5-A Lab Sample ID: 200-176996-5
Client ID: MW-1253 IR
Operator ID: lc812tech ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

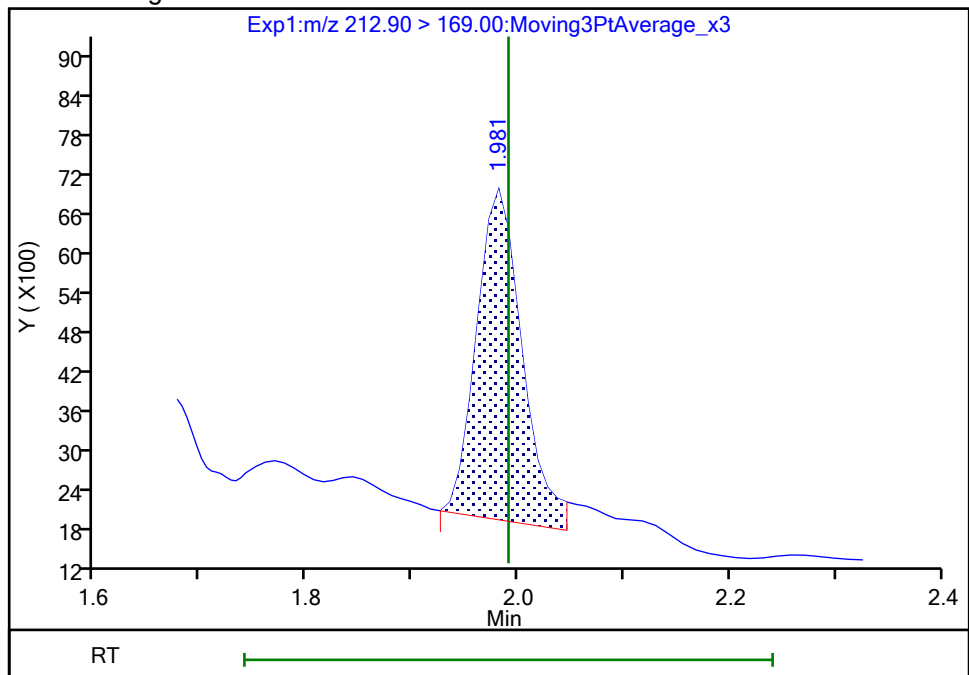
RT: 1.98
Area: 13986
Amount: 0.020082
Amount Units: ng/ml

Processing Integration Results



RT: 1.98
Area: 14986
Amount: 0.021518
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 13:04:14
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 344 of 906

Eurofins TestAmerica, Burlington

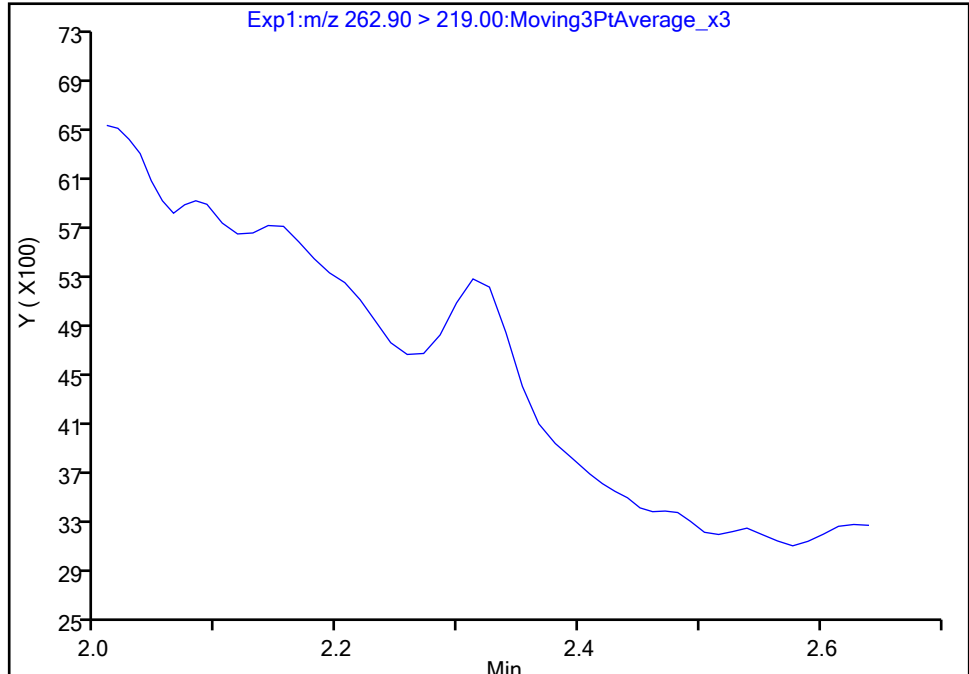
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Lims ID:	480-176996-C-5-A	Lab Sample ID:	200-176996-5		
Client ID:	MW-1253 IR				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

4 Perfluoropentanoic acid, CAS: 2706-90-3

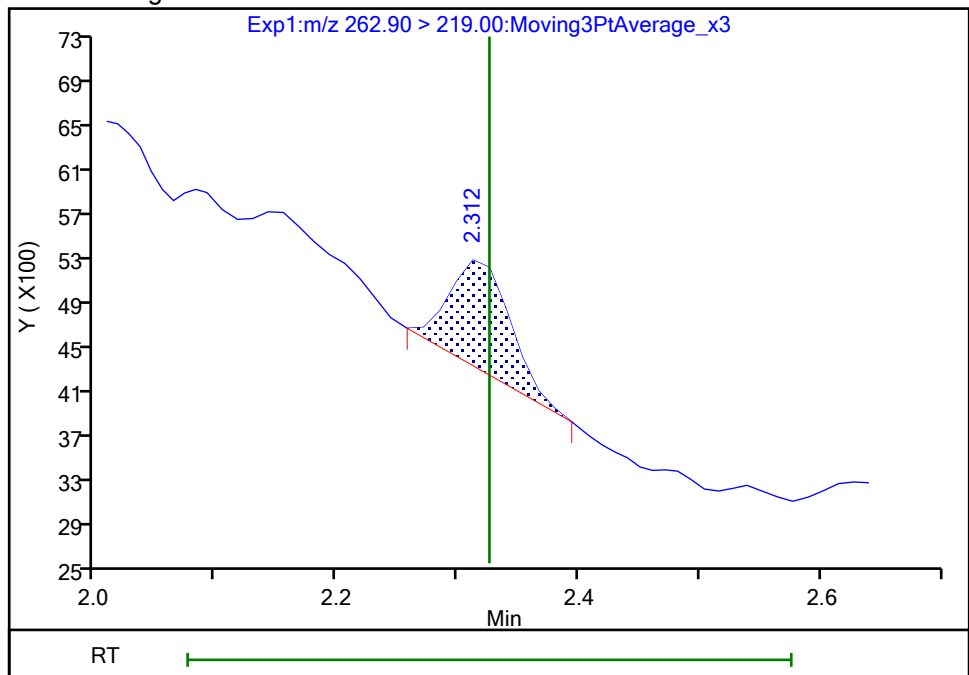
Signal: 1

Not Detected
Expected RT: 2.33

Processing Integration Results



Manual Integration Results



RT: 2.31
Area: 3432
Amount: 0.005725
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:02:03

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

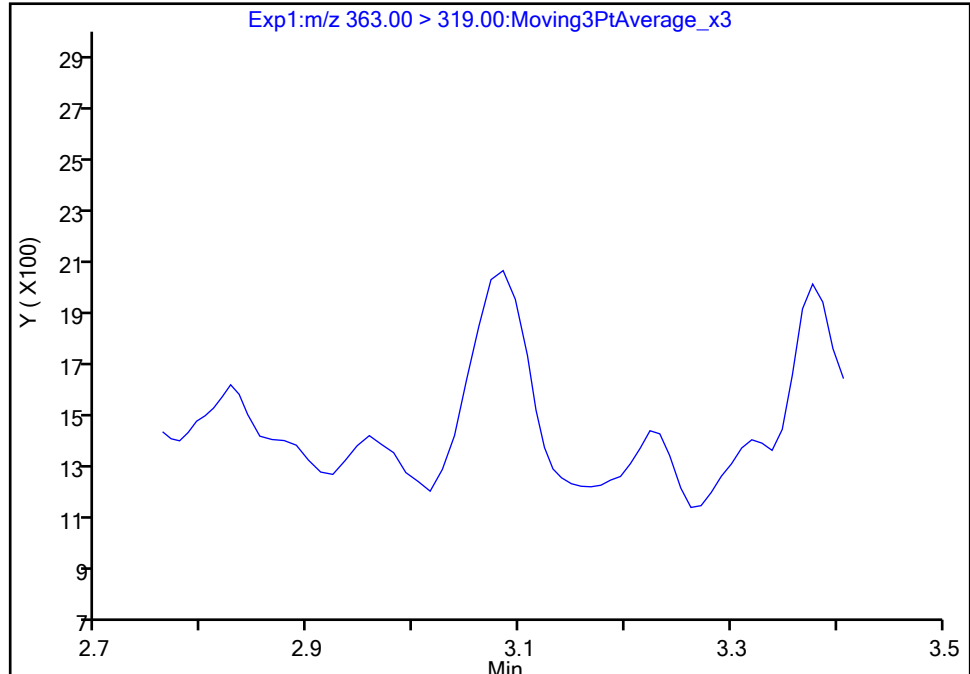
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Injection Date:	27-Oct-2020 20:15:26	Instrument ID:	LC812		
Lims ID:	480-176996-C-5-A	Lab Sample ID:	200-176996-5		
Client ID:	MW-1253 IR				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector:	EXP1		

10 Perfluoroheptanoic acid, CAS: 375-85-9

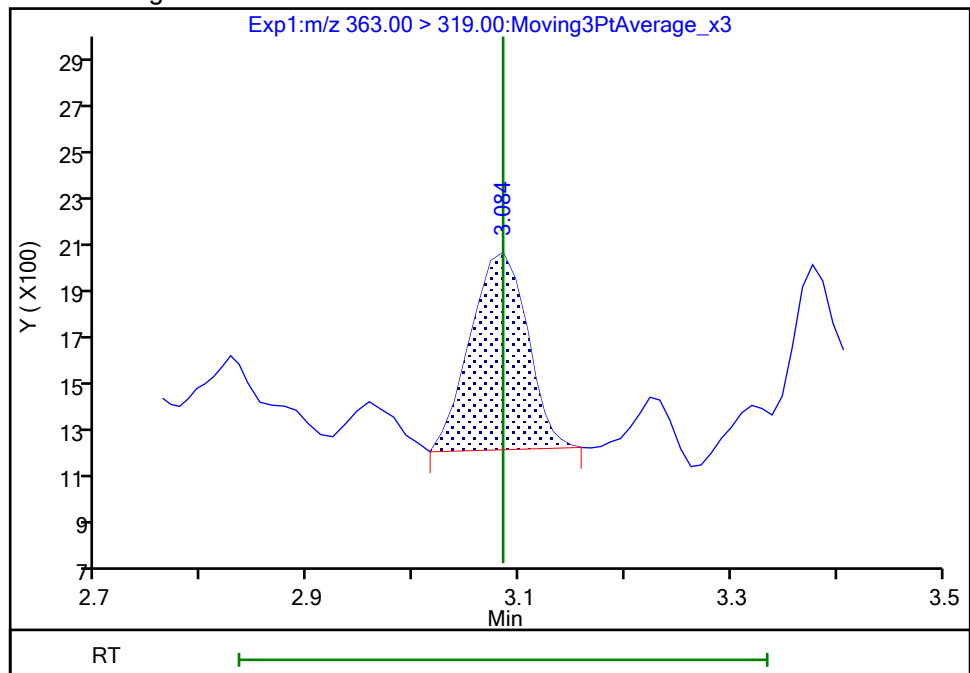
Signal: 1

Not Detected
Expected RT: 3.08

Processing Integration Results



Manual Integration Results



RT: 3.08
Area: 3165
Amount: 0.005933
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:02:37

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

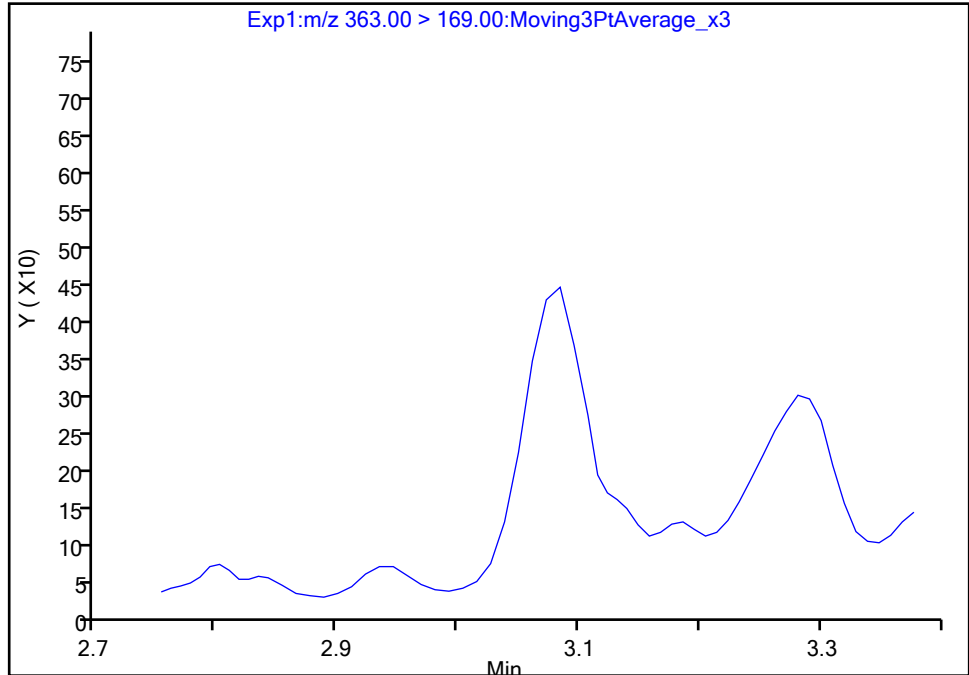
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Injection Date: 27-Oct-2020 20:15:26 Instrument ID: LC812
Lims ID: 480-176996-C-5-A Lab Sample ID: 200-176996-5
Client ID: MW-1253 IR
Operator ID: lc812tech ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

10 Perfluoroheptanoic acid, CAS: 375-85-9

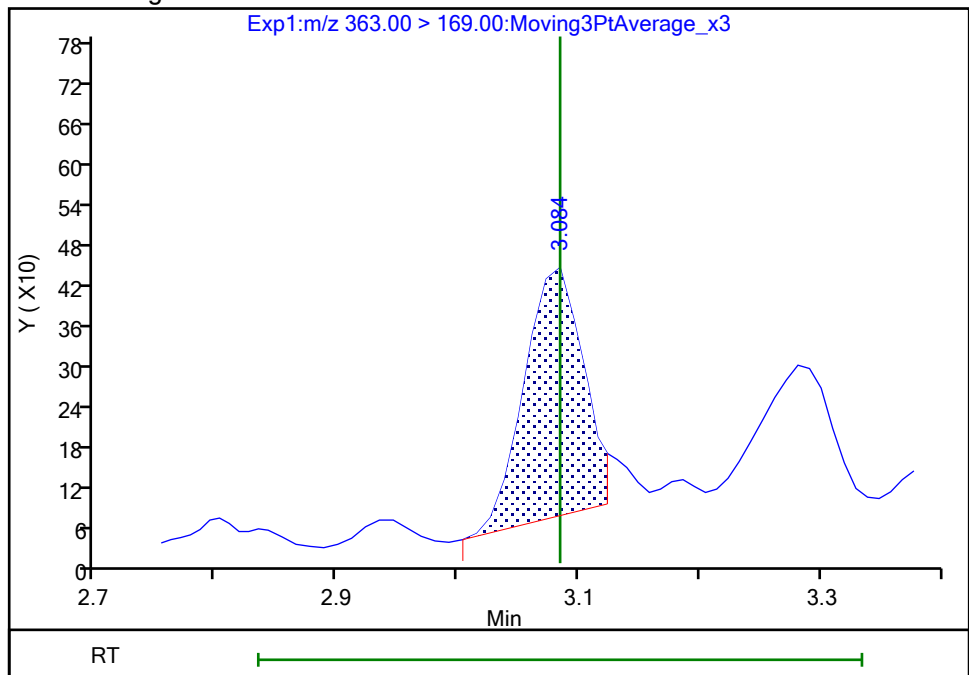
Signal: 2

Not Detected
Expected RT: 3.08

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:02:45

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

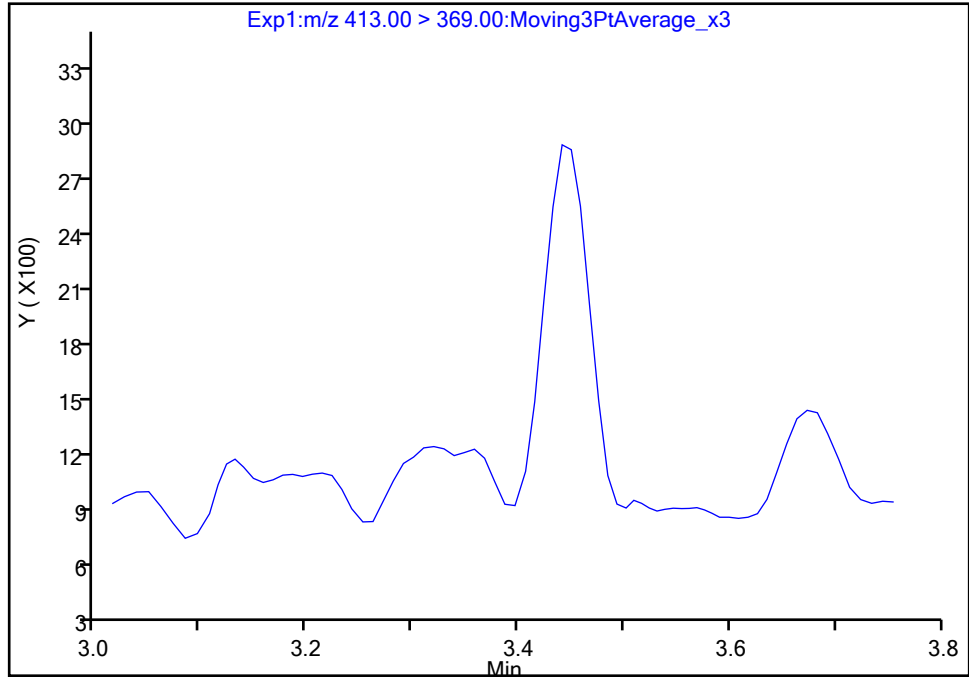
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Lims ID:	480-176996-C-5-A	Lab Sample ID:	200-176996-5		
Client ID:	MW-1253 IR				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

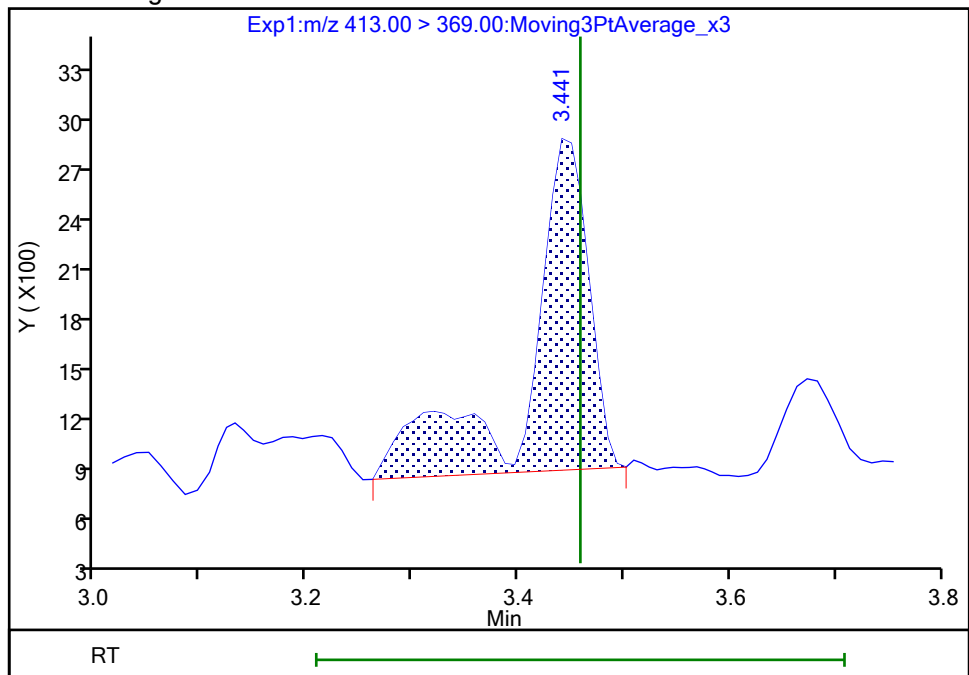
Signal: 1

Not Detected
Expected RT: 3.46

Processing Integration Results



Manual Integration Results



RT: 3.44
Area: 7801
Amount: 0.014987
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:03:26

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

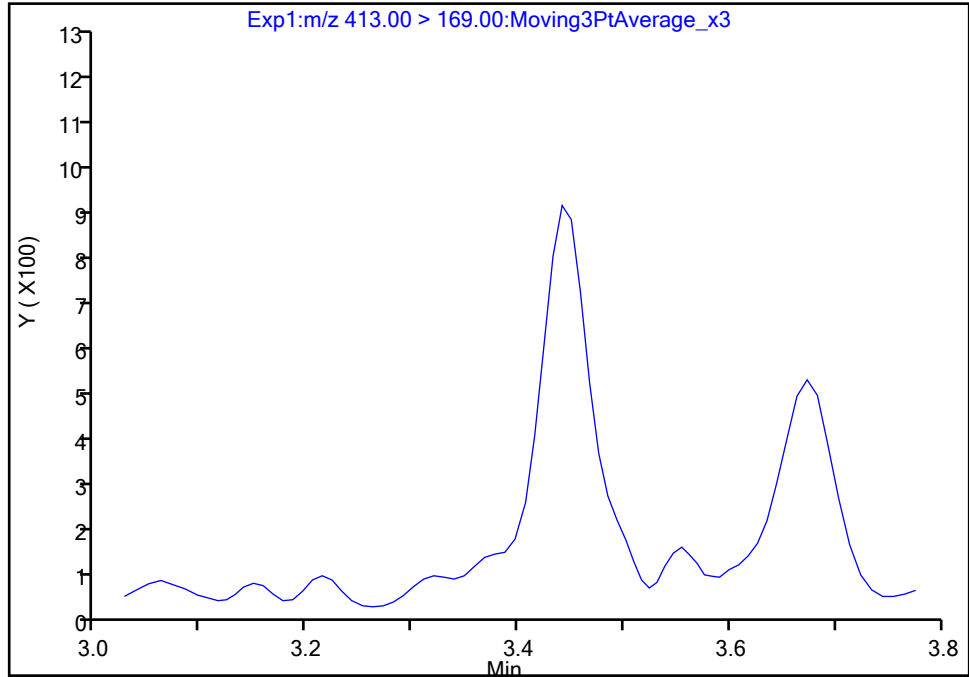
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A24.d
Injection Date: 27-Oct-2020 20:15:26 Instrument ID: LC812
Lims ID: 480-176996-C-5-A Lab Sample ID: 200-176996-5
Client ID: MW-1253 IR
Operator ID: lc812tech ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

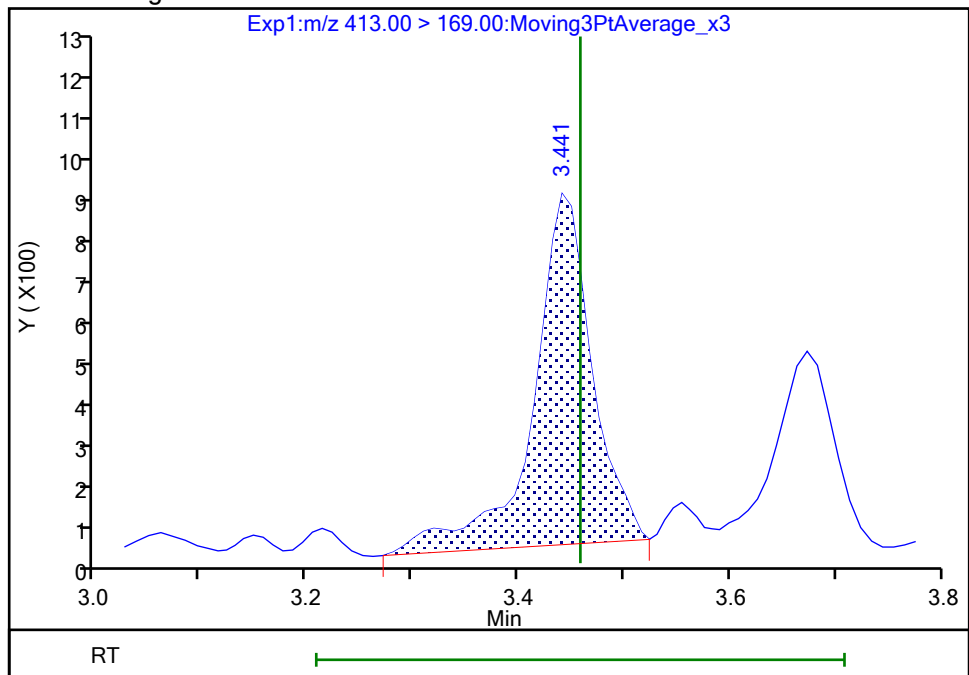
Not Detected
Expected RT: 3.46

Processing Integration Results



Manual Integration Results

RT: 3.44
Area: 3220
Amount: 0.014987
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 10:03:33

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

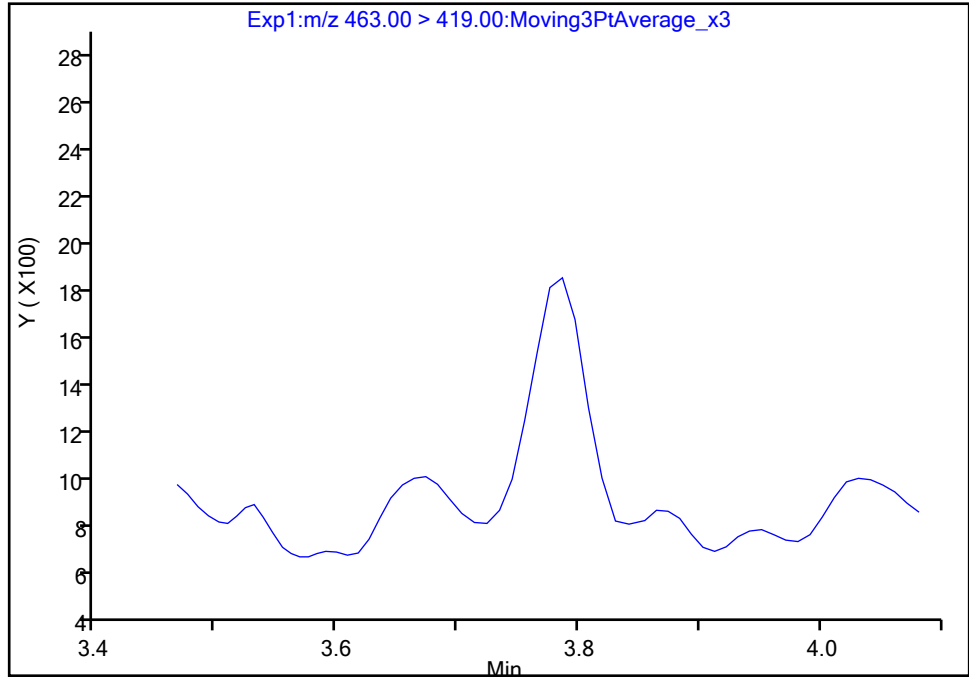
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Lims ID:	480-176996-C-5-A	Lab Sample ID:	200-176996-5		
Client ID:	MW-1253 IR				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

20 Perfluorononanoic acid, CAS: 375-95-1

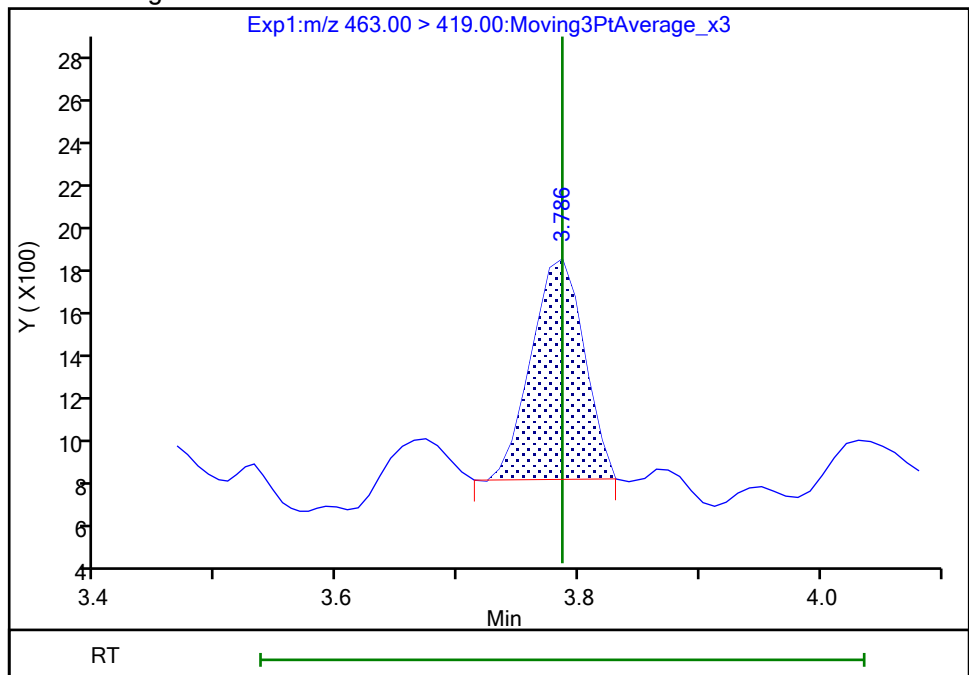
Signal: 1

Not Detected
Expected RT: 3.79

Processing Integration Results



Manual Integration Results



RT: 3.79
Area: 3090
Amount: 0.007202
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:04:18

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

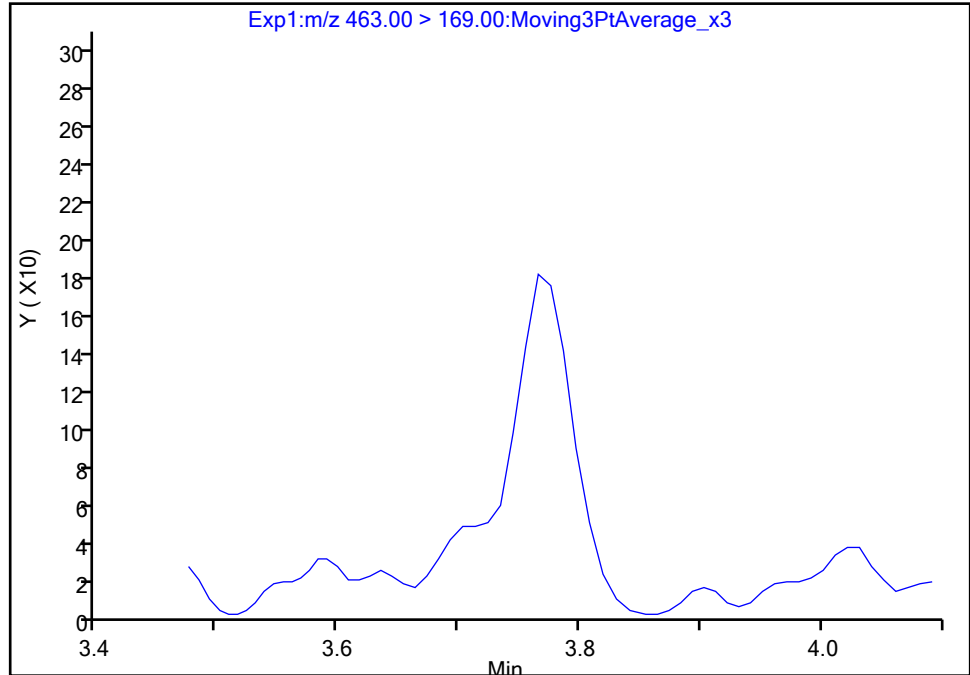
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Injection Date: 27-Oct-2020 20:15:26 Instrument ID: LC812
Lims ID: 480-176996-C-5-A Lab Sample ID: 200-176996-5
Client ID: MW-1253 IR
Operator ID: lc812tech ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

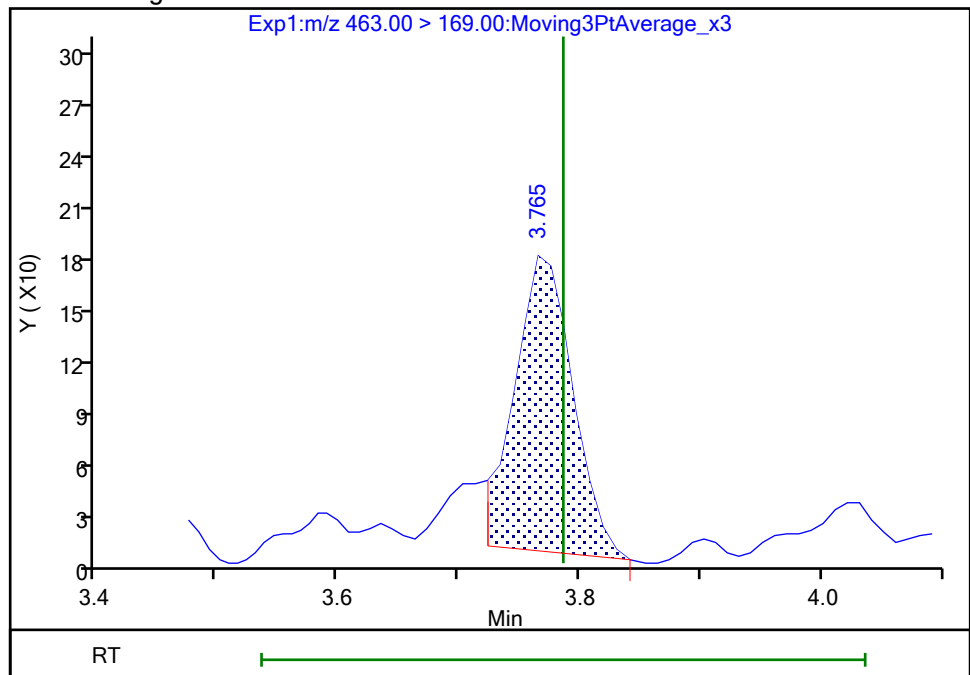
Not Detected
Expected RT: 3.79

Processing Integration Results



Manual Integration Results

RT: 3.77
Area: 568
Amount: 0.007202
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 10:04:23

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

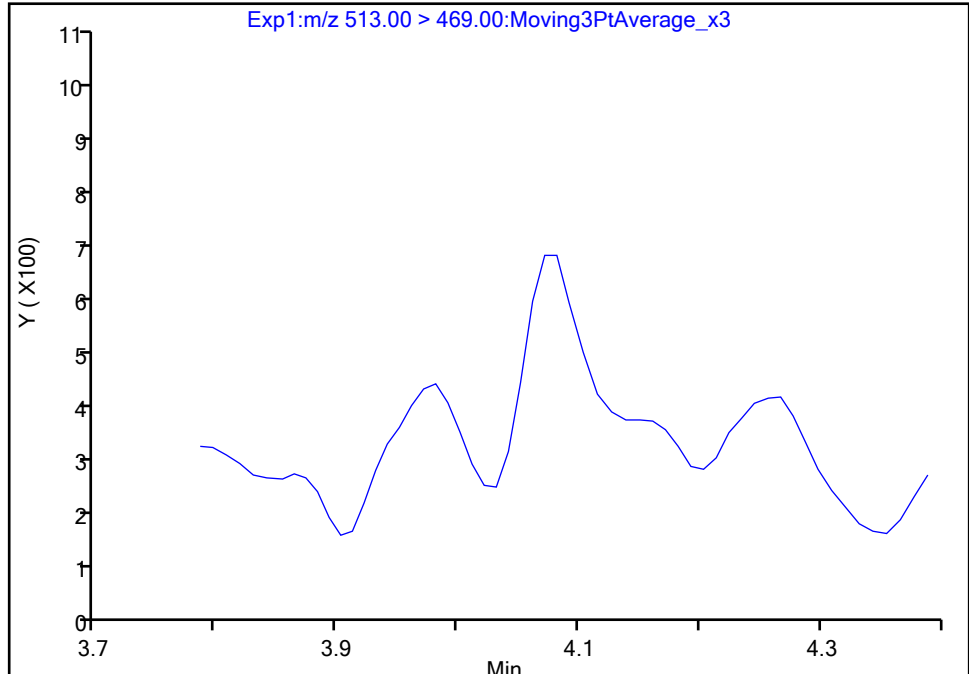
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Client ID:	MW-1253 IR				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

24 Perfluorodecanoic acid, CAS: 335-76-2

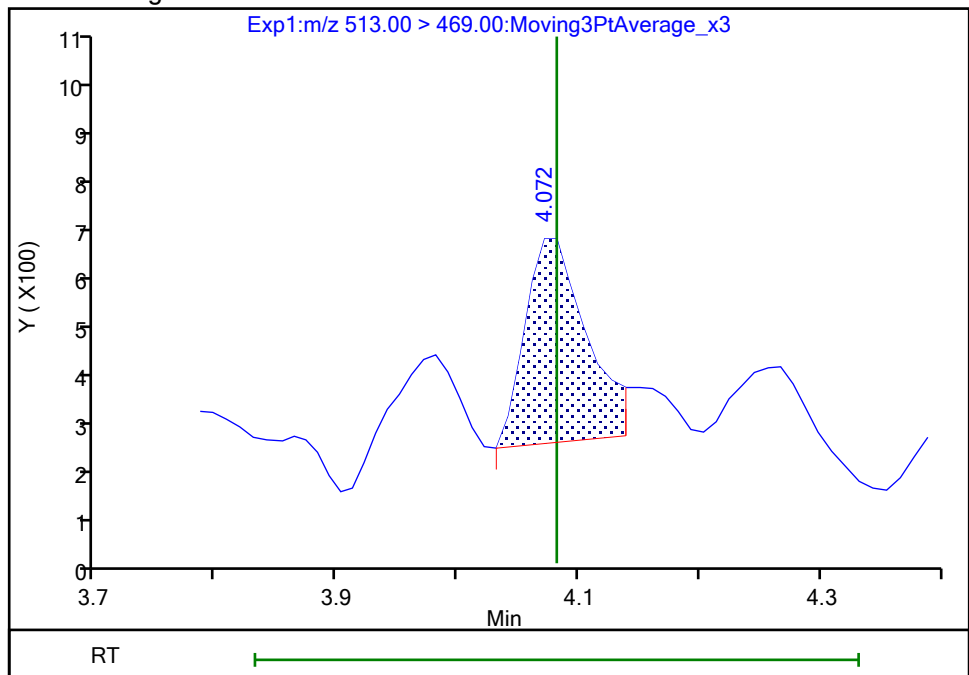
Signal: 1

Not Detected
Expected RT: 4.08

Processing Integration Results



Manual Integration Results

RT: 4.07
Area: 1376
Amount: 0.003739
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:06:10

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

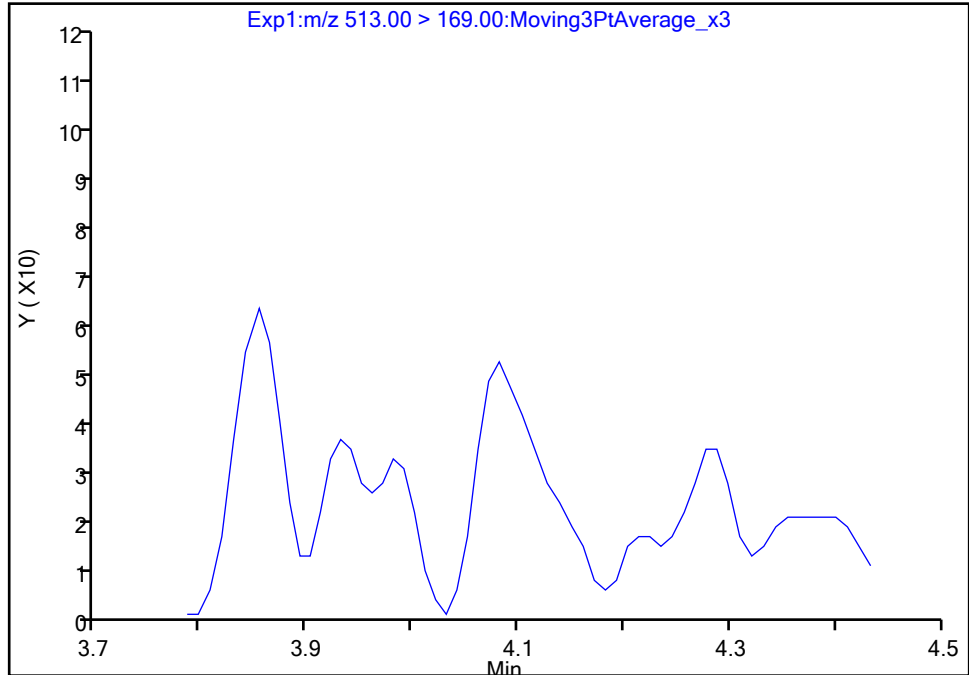
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A24.d
Injection Date: 27-Oct-2020 20:15:26 Instrument ID: LC812
Lims ID: 480-176996-C-5-A Lab Sample ID: 200-176996-5
Client ID: MW-1253 IR
Operator ID: lc812tech ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

24 Perfluorodecanoic acid, CAS: 335-76-2

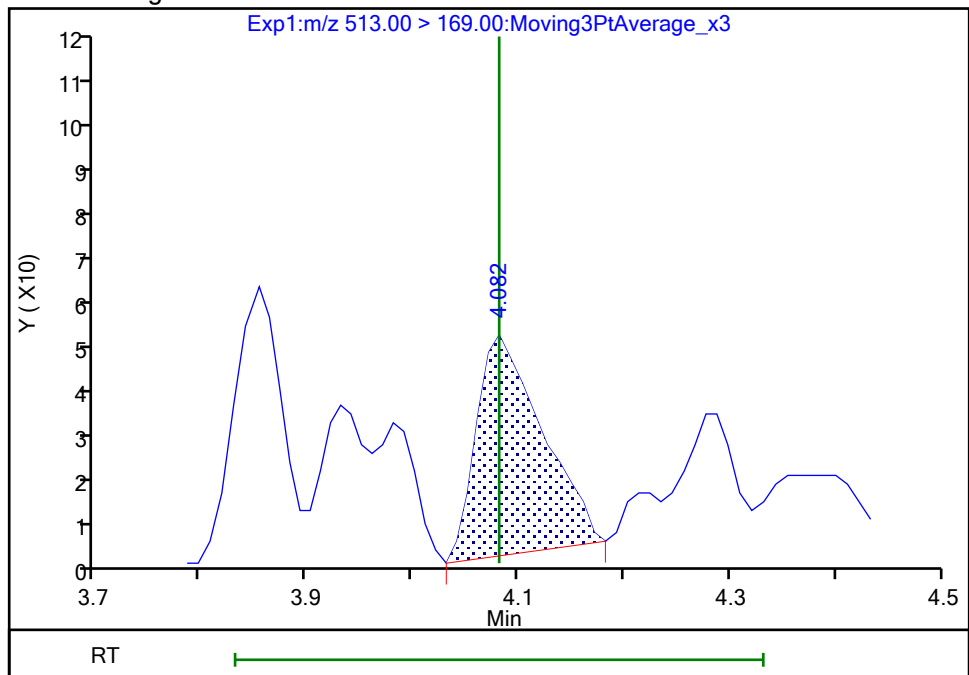
Signal: 2

Not Detected
Expected RT: 4.08

Processing Integration Results



Manual Integration Results



RT: 4.08
Area: 216
Amount: 0.003739
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:06:18

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

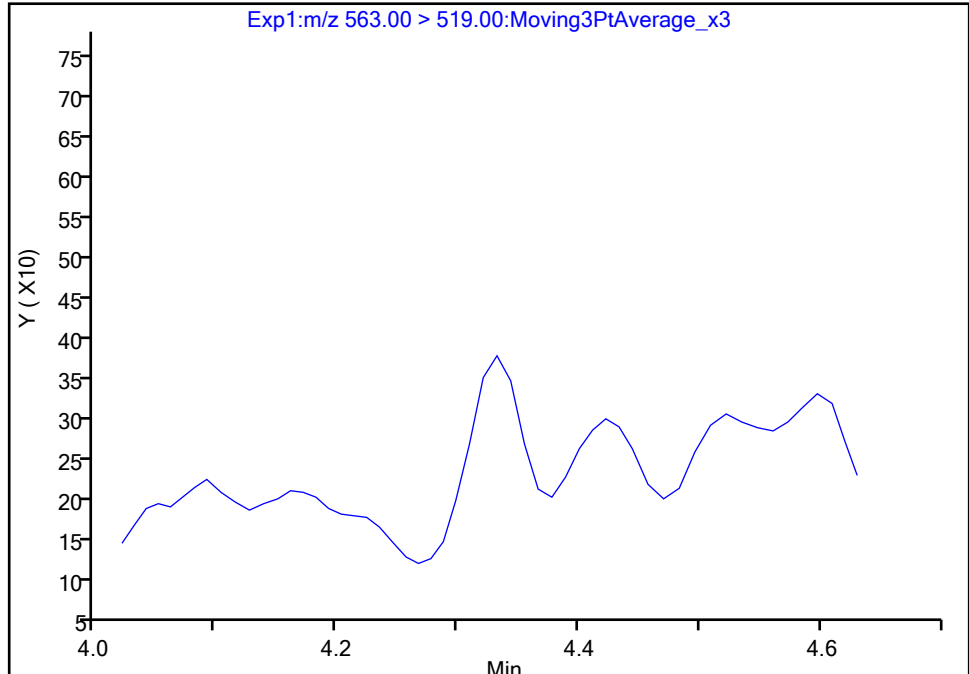
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A24.d
Injection Date: 27-Oct-2020 20:15:26 Instrument ID: LC812
Lims ID: 480-176996-C-5-A Lab Sample ID: 200-176996-5
Client ID: MW-1253 IR
Operator ID: lc812tech ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

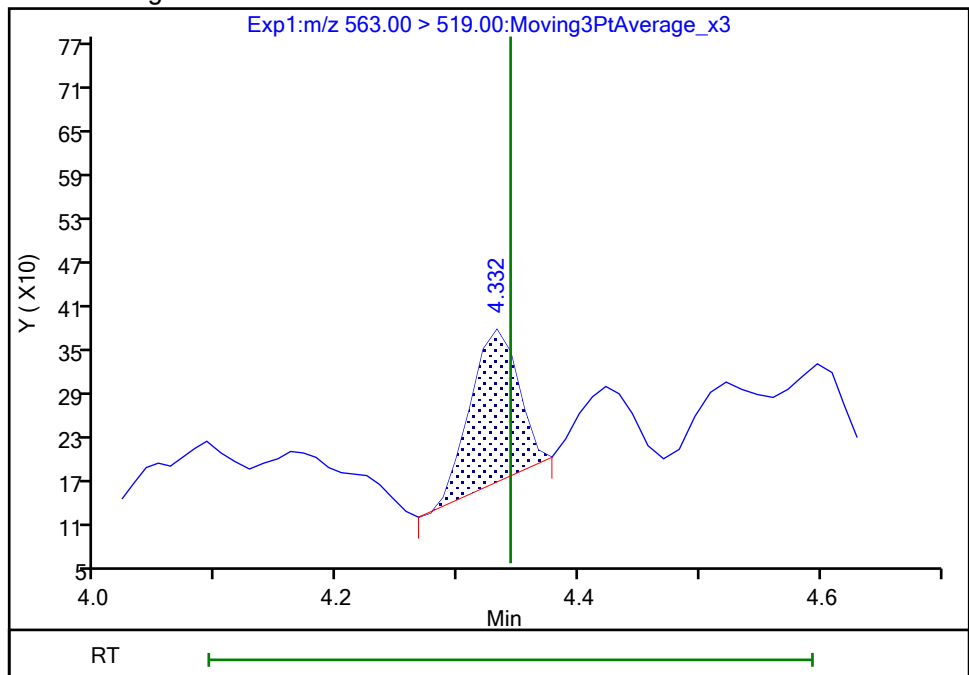
Not Detected
Expected RT: 4.34

Processing Integration Results



RT: 4.33
Area: 578
Amount: 0.002026
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:06:42

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

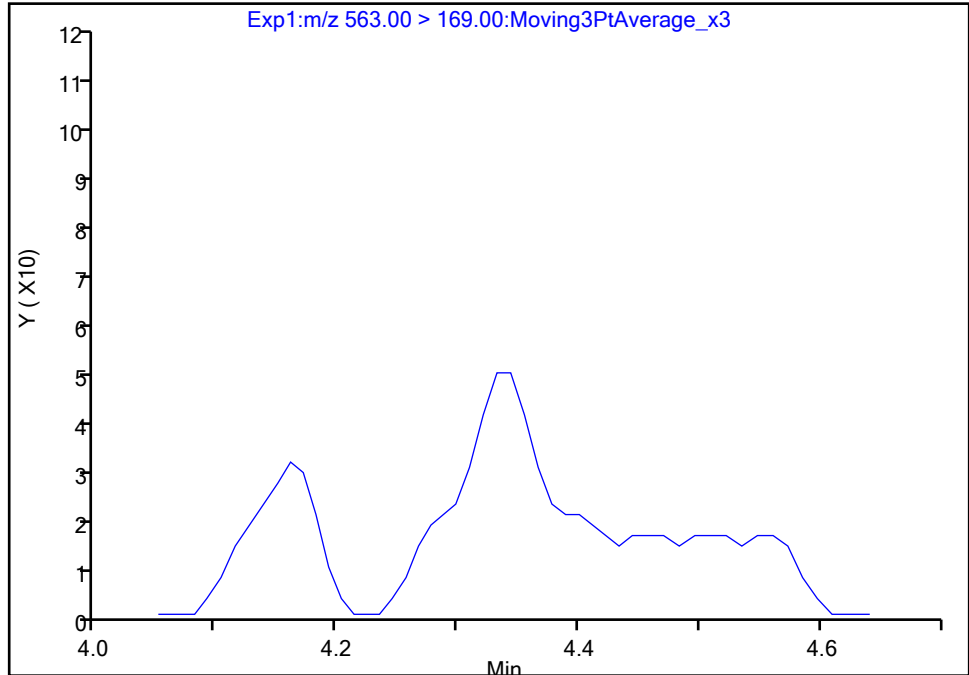
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A24.d
Injection Date: 27-Oct-2020 20:15:26 Instrument ID: LC812
Lims ID: 480-176996-C-5-A Lab Sample ID: 200-176996-5
Client ID: MW-1253 IR
Operator ID: lc812tech ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

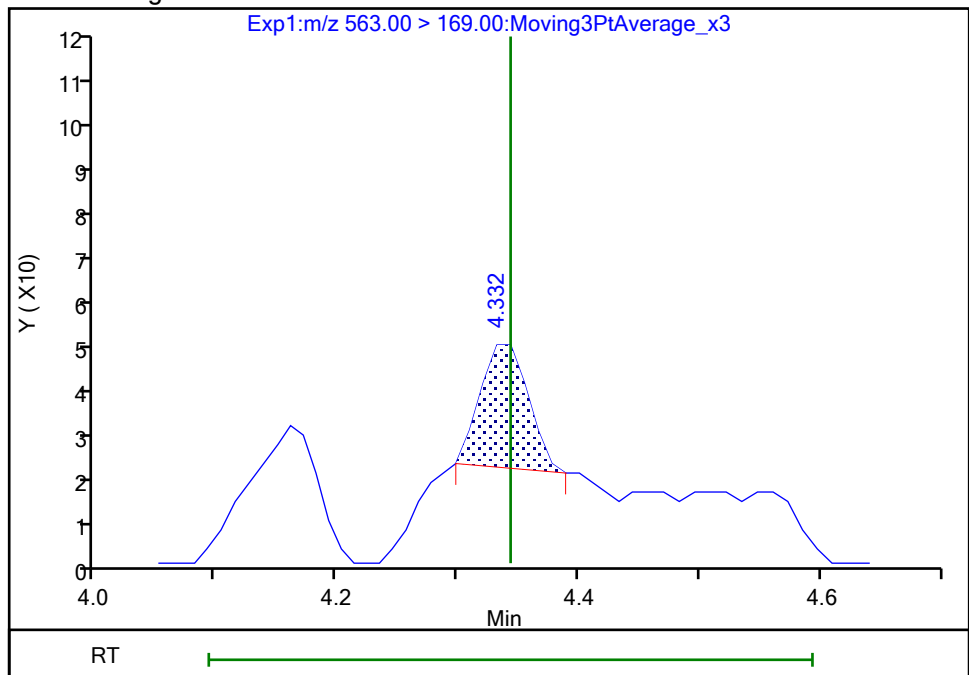
Not Detected
Expected RT: 4.34

Processing Integration Results



Manual Integration Results

RT: 4.33
Area: 71
Amount: 0.002026
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 10:06:48

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 355 of 906

Eurofins TestAmerica, Burlington

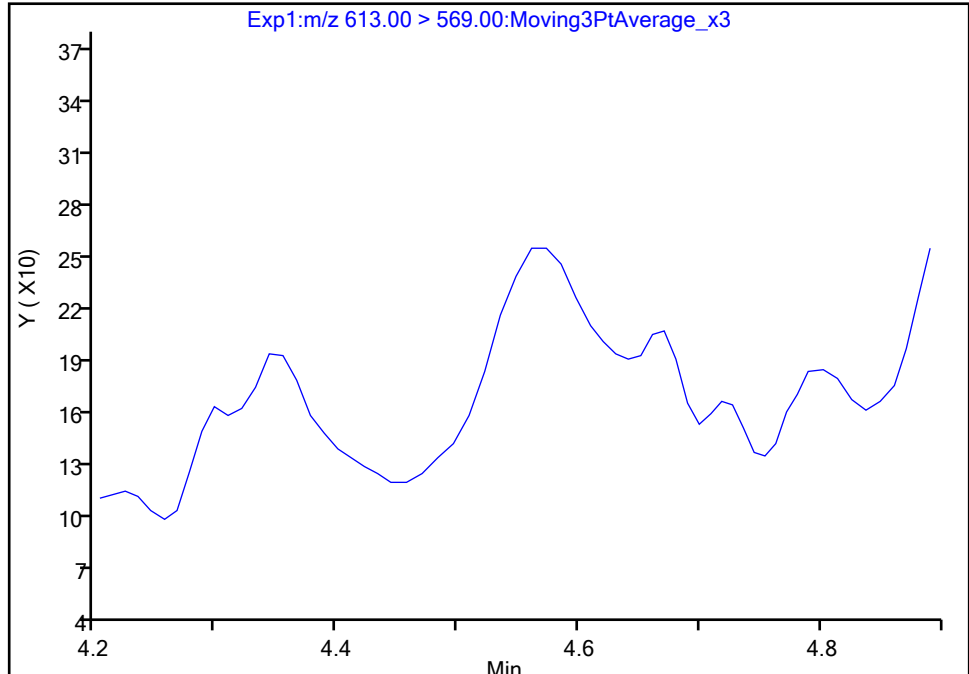
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A24.d
Injection Date: 27-Oct-2020 20:15:26 Instrument ID: LC812
Lims ID: 480-176996-C-5-A Lab Sample ID: 200-176996-5
Client ID: MW-1253 IR
Operator ID: lc812tech ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

37 Perfluorododecanoic acid, CAS: 307-55-1

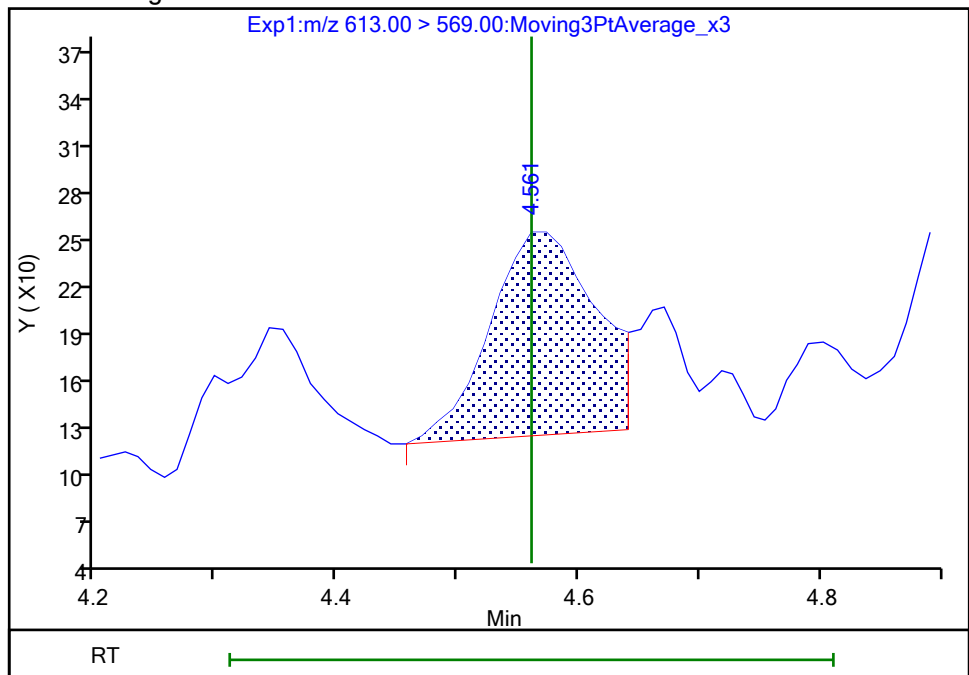
Signal: 1

Not Detected
Expected RT: 4.56

Processing Integration Results



Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 13:05:34

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

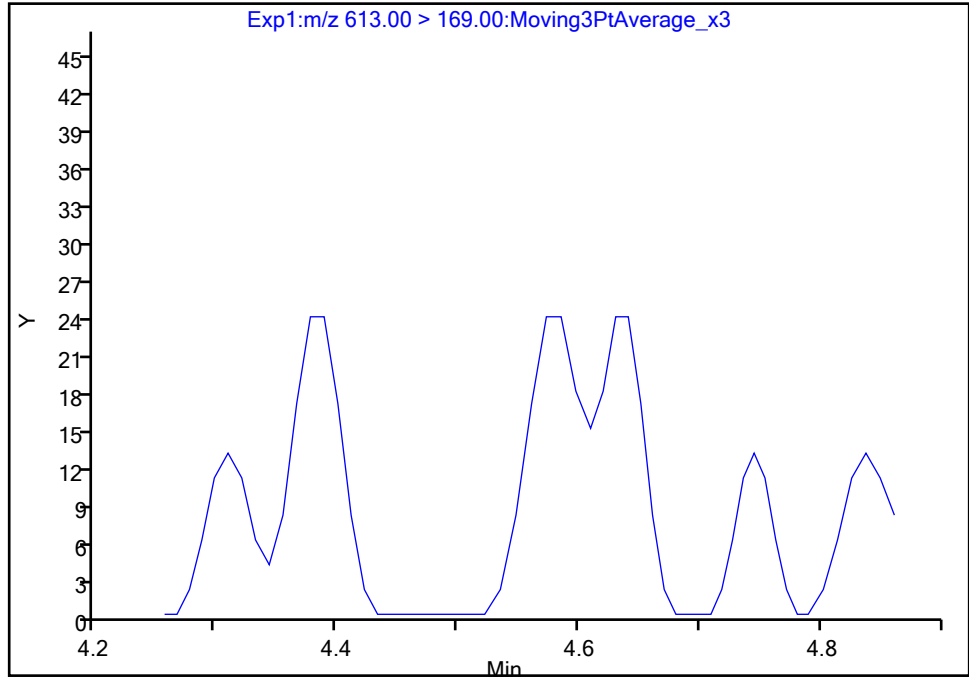
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A24.d
Injection Date: 27-Oct-2020 20:15:26 Instrument ID: LC812
Lims ID: 480-176996-C-5-A Lab Sample ID: 200-176996-5
Client ID: MW-1253 IR
Operator ID: lc812tech ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

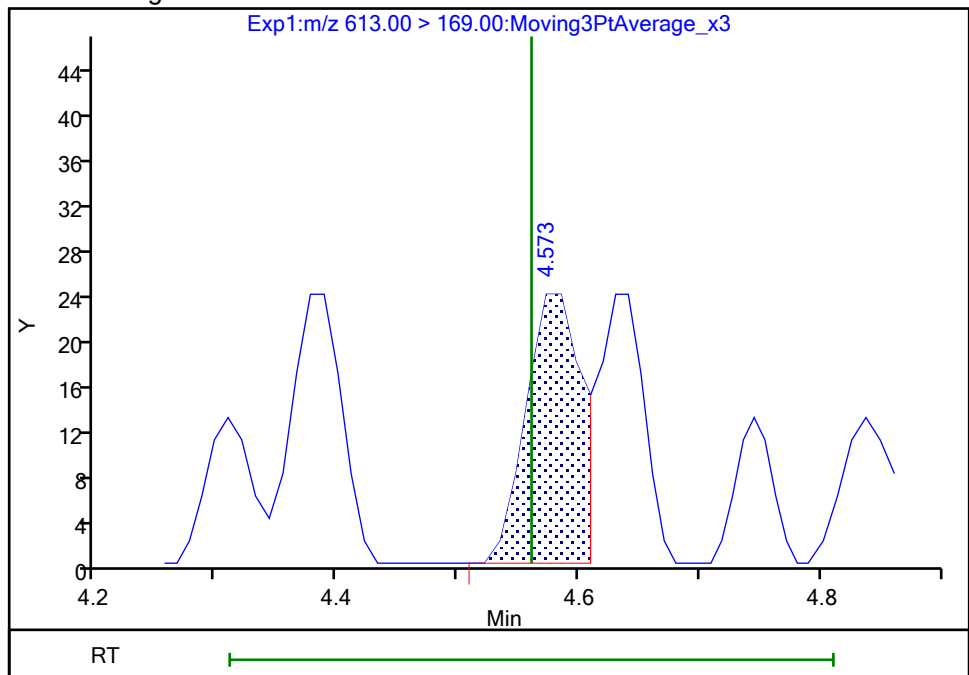
Not Detected
Expected RT: 4.56

Processing Integration Results



RT: 4.57
Area: 74
Amount: 0.003731
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 13:05:37

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

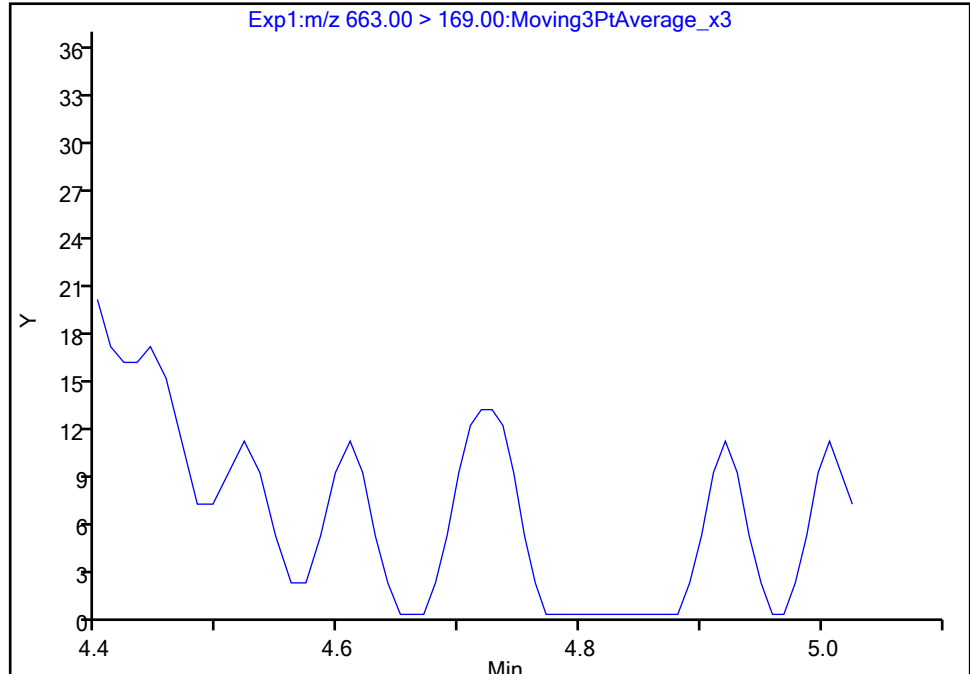
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A24.d				
Injection Date:	27-Oct-2020 20:15:26	Instrument ID:	LC812		
Lims ID:	480-176996-C-5-A	Lab Sample ID:	200-176996-5		
Client ID:	MW-1253 IR				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

41 Perfluorotridecanoic acid, CAS: 72629-94-8

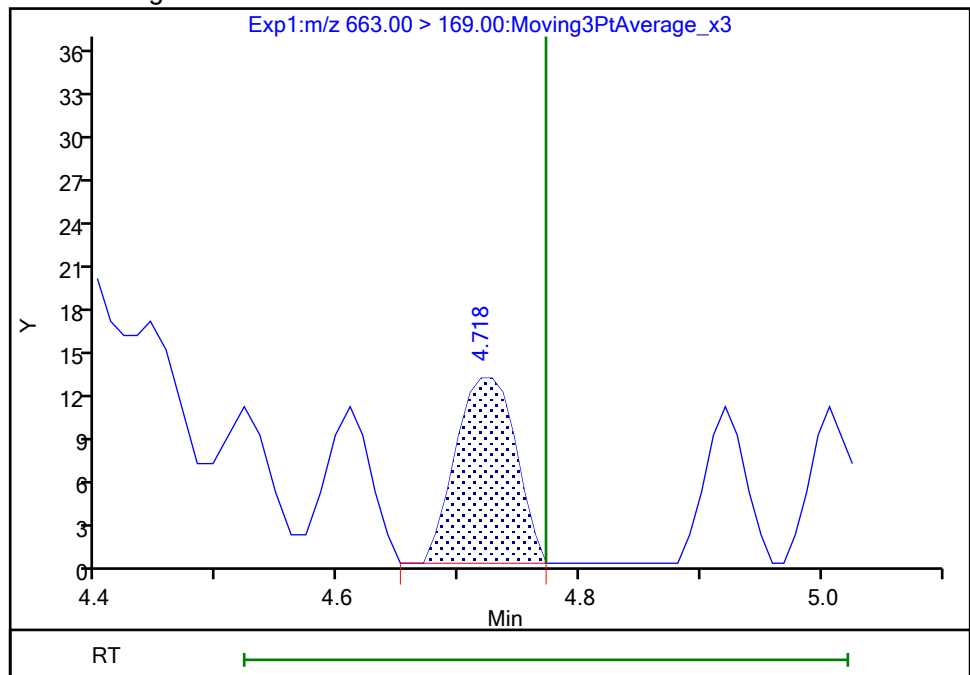
Signal: 2

Not Detected
Expected RT: 4.77

Processing Integration Results

RT: 4.72
Area: 44
Amount: 0.003060
Amount Units: ng/ml

Manual Integration Results

Reviewer: chirgwinb, 28-Oct-2020 13:05:48
Audit Action: Manually IntegratedAudit Reason: Missed Peak
Page 358 of 906

Eurofins TestAmerica, Burlington

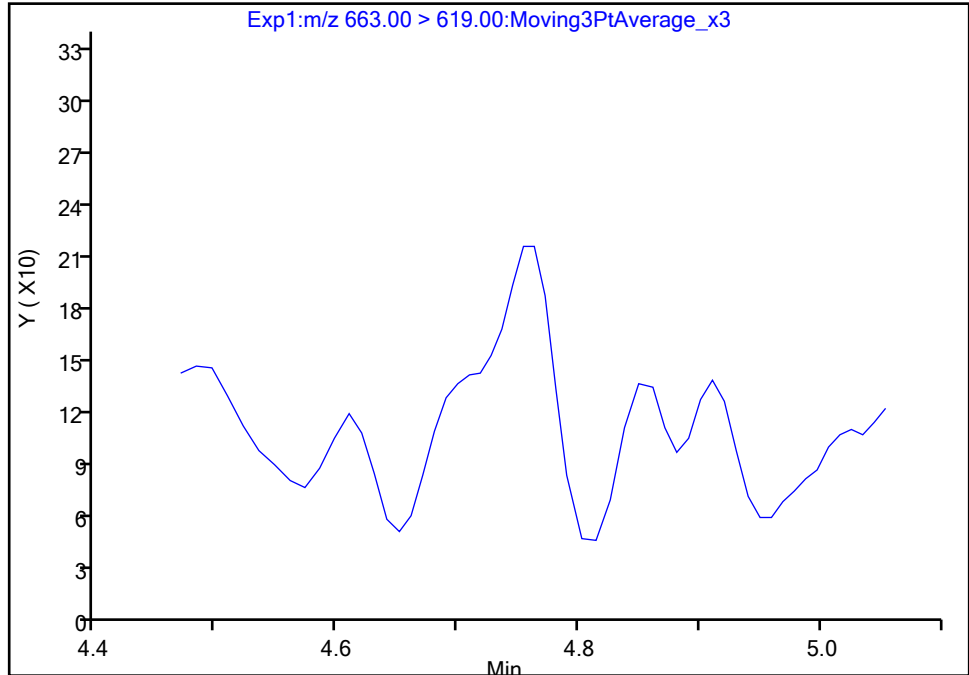
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A24.d
Injection Date: 27-Oct-2020 20:15:26 Instrument ID: LC812
Lims ID: 480-176996-C-5-A Lab Sample ID: 200-176996-5
Client ID: MW-1253 IR
Operator ID: lc812tech ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

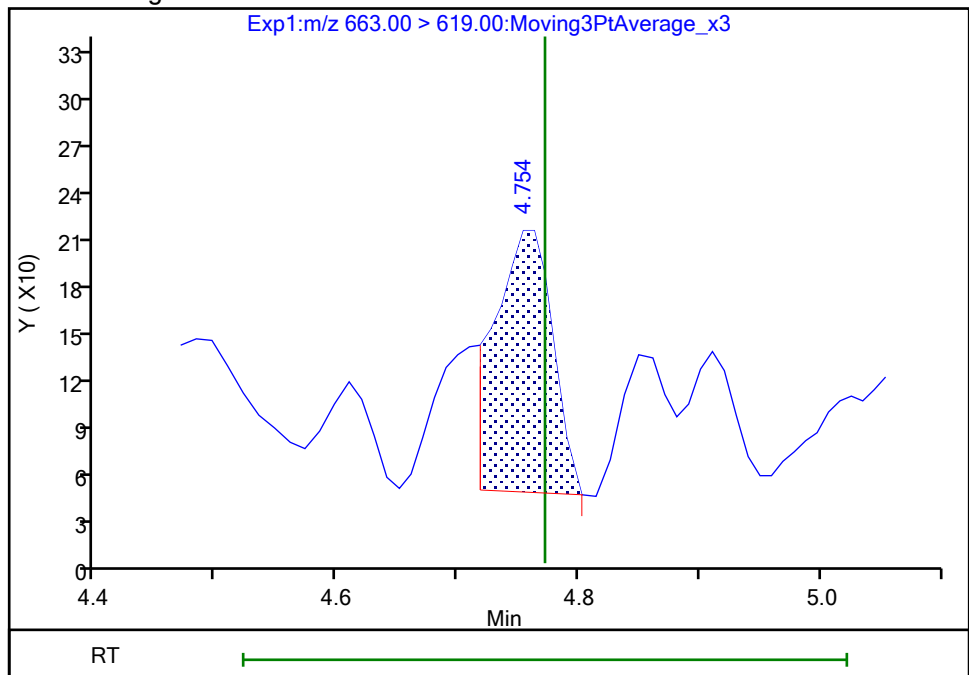
Not Detected
Expected RT: 4.77

Processing Integration Results



Manual Integration Results

RT: 4.75
Area: 535
Amount: 0.003060
Amount Units: ng/ml



Reviewer: chirgwinb, 28-Oct-2020 13:05:51

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

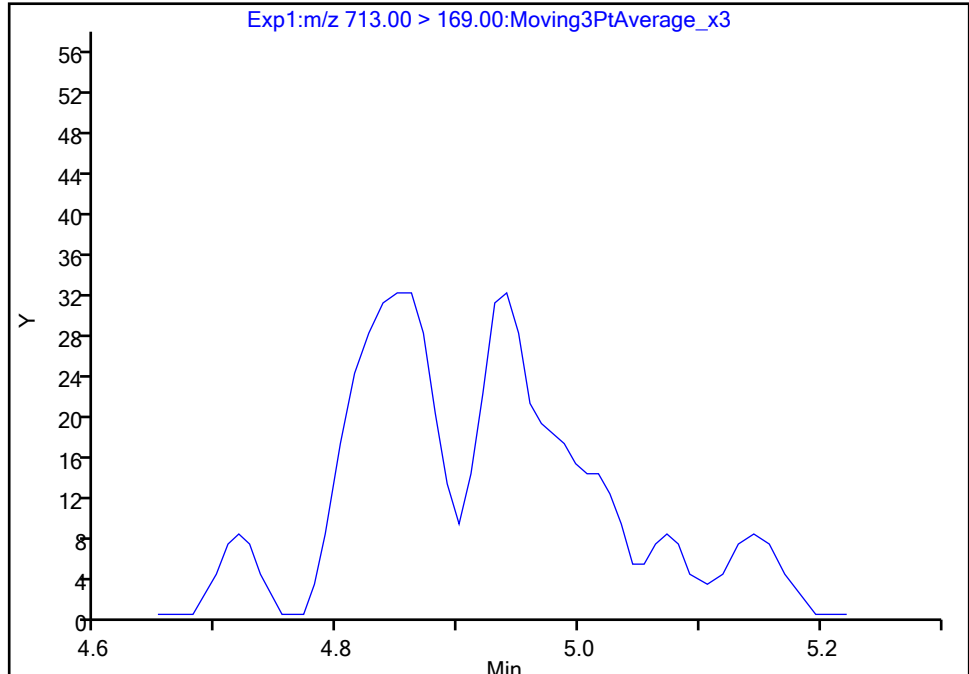
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A24.d
Injection Date: 27-Oct-2020 20:15:26 Instrument ID: LC812
Lims ID: 480-176996-C-5-A Lab Sample ID: 200-176996-5
Client ID: MW-1253 IR
Operator ID: lc812tech ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

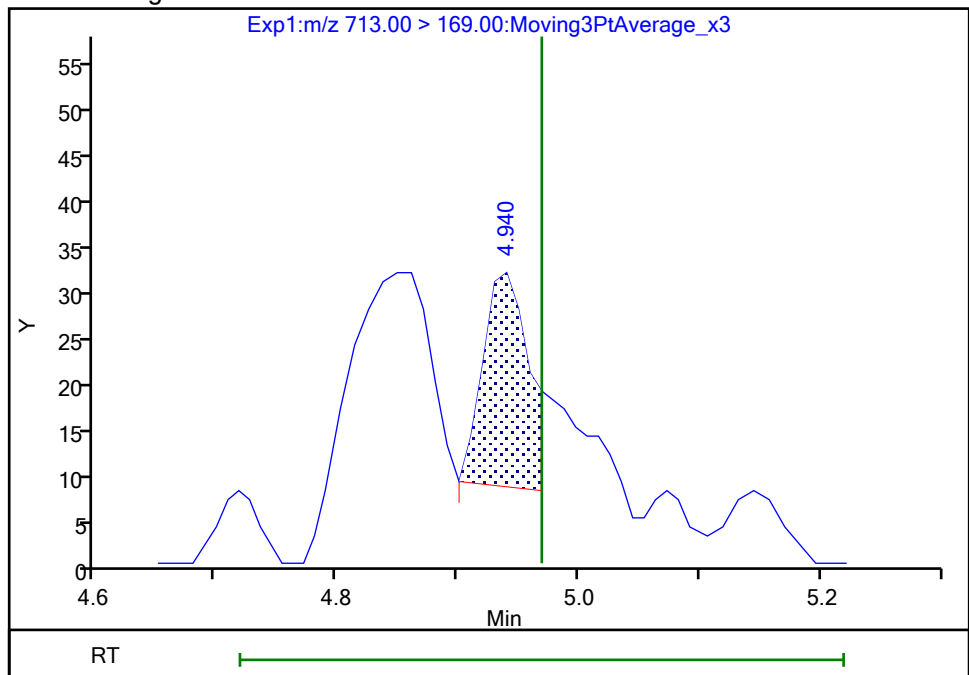
Signal: 1

Not Detected
Expected RT: 4.97

Processing Integration Results



Manual Integration Results



RT: 4.94
Area: 59
Amount: 0.001781
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:07:15

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

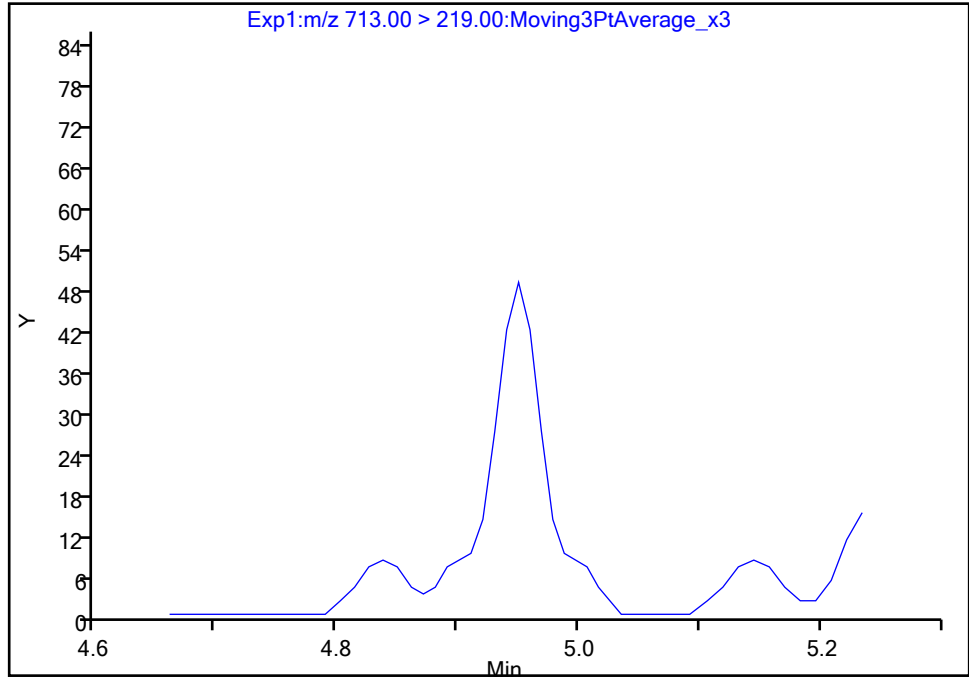
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A24.d
Injection Date: 27-Oct-2020 20:15:26 Instrument ID: LC812
Lims ID: 480-176996-C-5-A Lab Sample ID: 200-176996-5
Client ID: MW-1253 IR
Operator ID: lc812tech ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

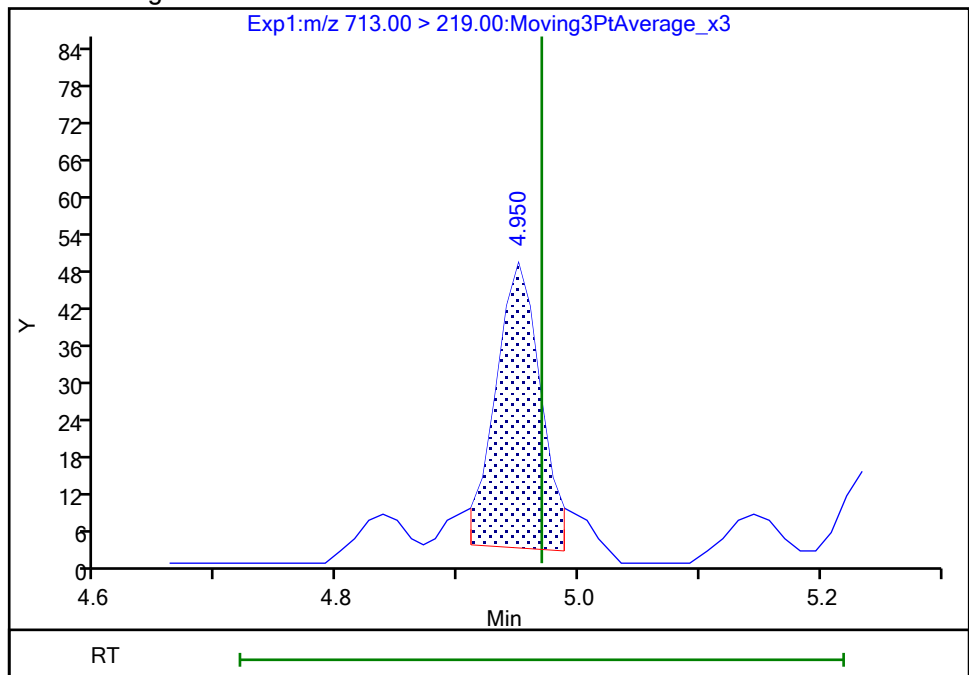
Not Detected
Expected RT: 4.97

Processing Integration Results



RT: 4.95
Area: 118
Amount: 0.001781
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:07:21

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

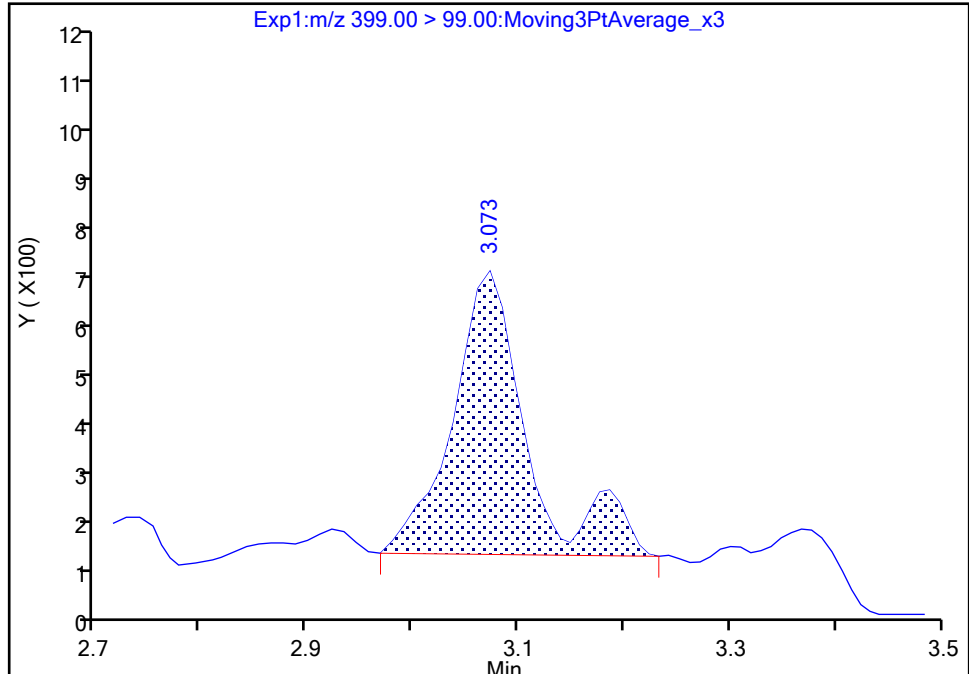
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A24.d				
Injection Date:	27-Oct-2020 20:15:26	Instrument ID:	LC812		
Lims ID:	480-176996-C-5-A	Lab Sample ID:	200-176996-5		
Client ID:	MW-1253 IR				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

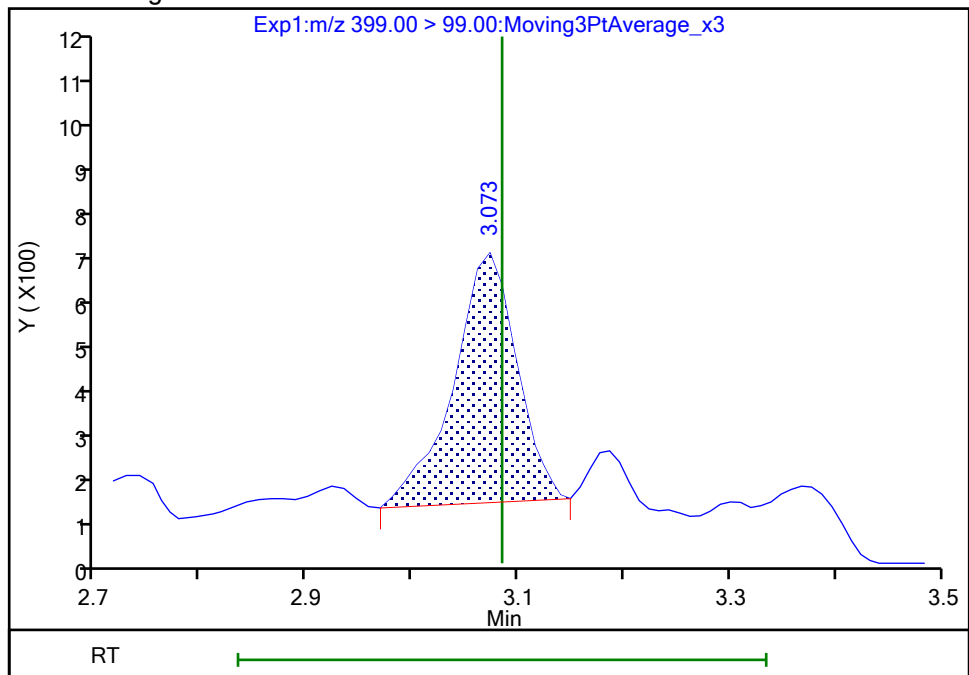
RT: 3.07
Area: 2695
Amount: 0.015580
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 2235
Amount: 0.014823
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:02:17

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

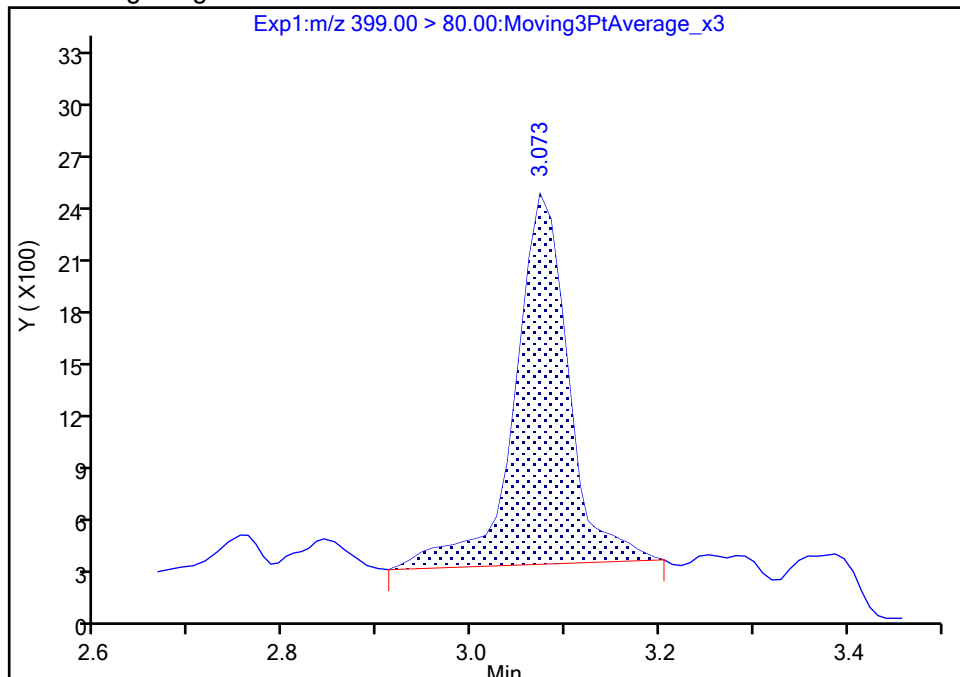
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A24.d
Injection Date: 27-Oct-2020 20:15:26 Instrument ID: LC812
Lims ID: 480-176996-C-5-A Lab Sample ID: 200-176996-5
Client ID: MW-1253 IR
Operator ID: lc812tech ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

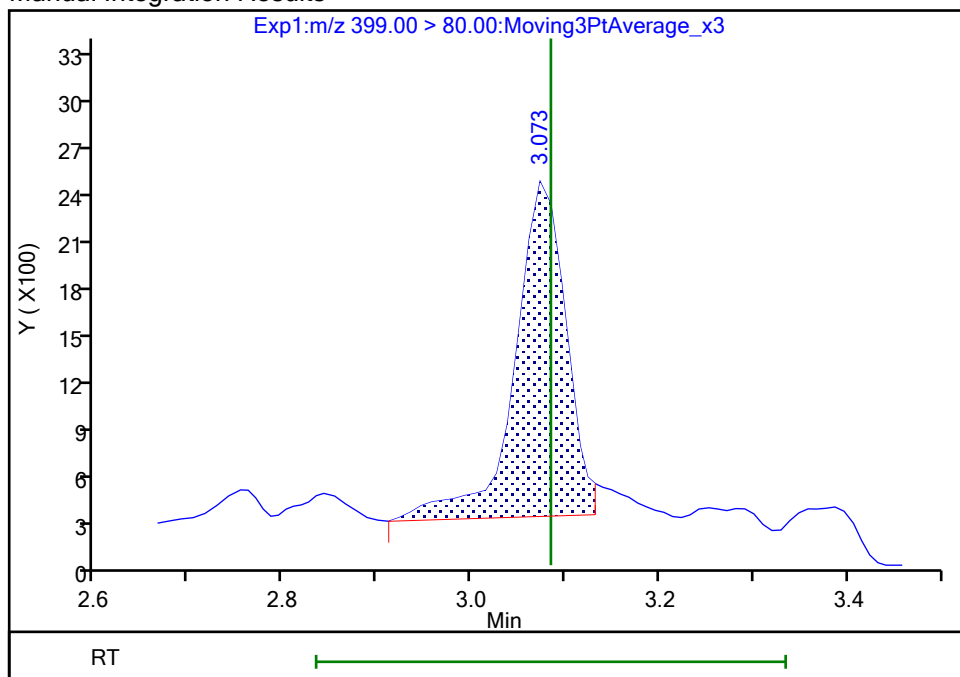
RT: 3.07
Area: 8510
Amount: 0.015580
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 8097
Amount: 0.014823
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:02:25

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

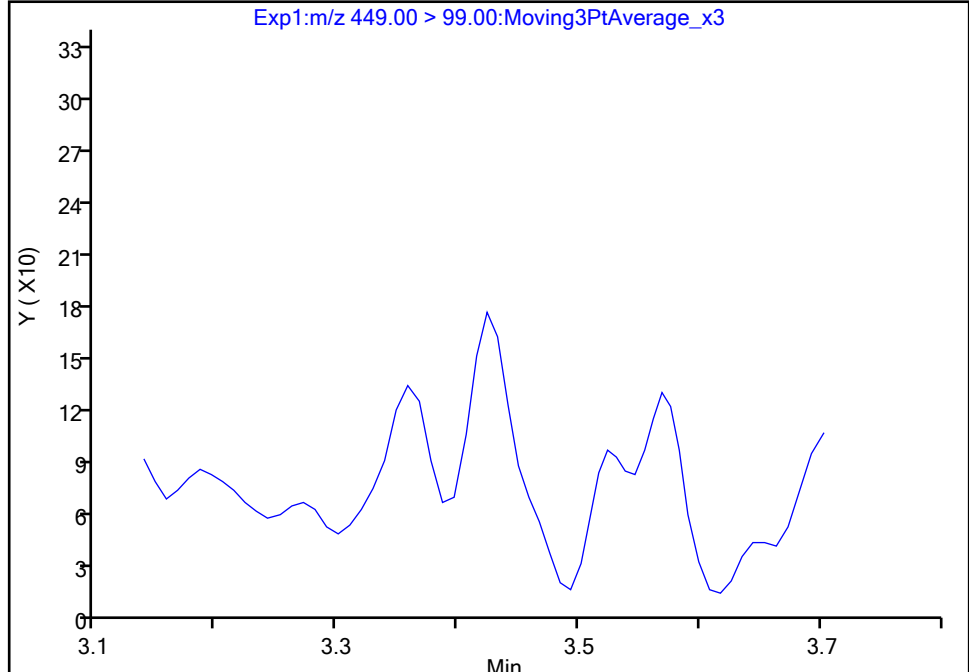
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A24.d				
Injection Date:	27-Oct-2020 20:15:26	Instrument ID:	LC812		
Lims ID:	480-176996-C-5-A	Lab Sample ID:	200-176996-5		
Client ID:	MW-1253 IR				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

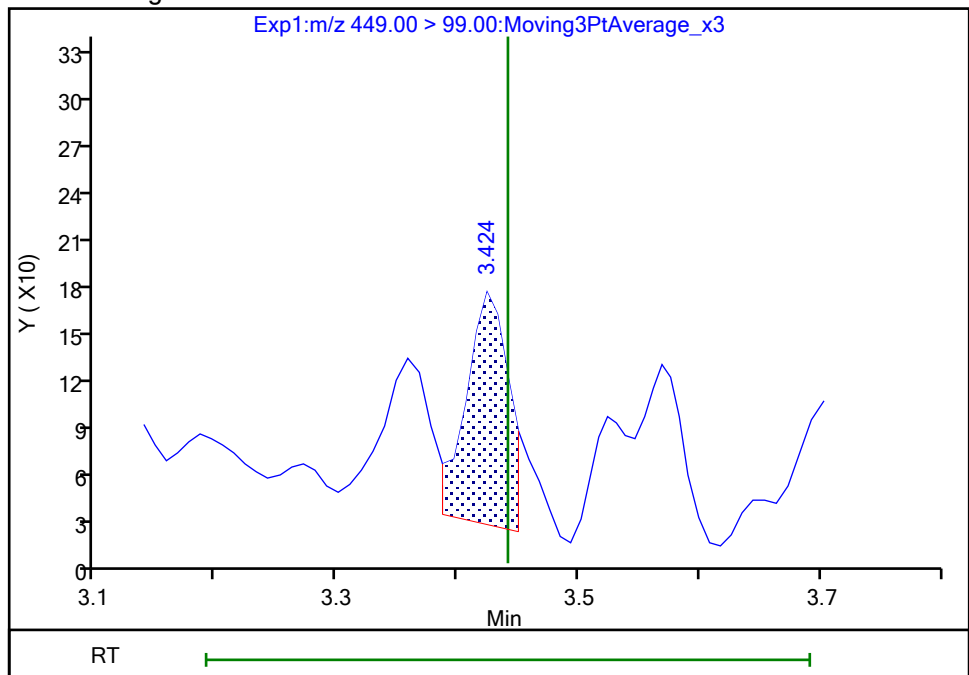
Signal: 2

Not Detected
Expected RT: 3.44

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:02:59

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

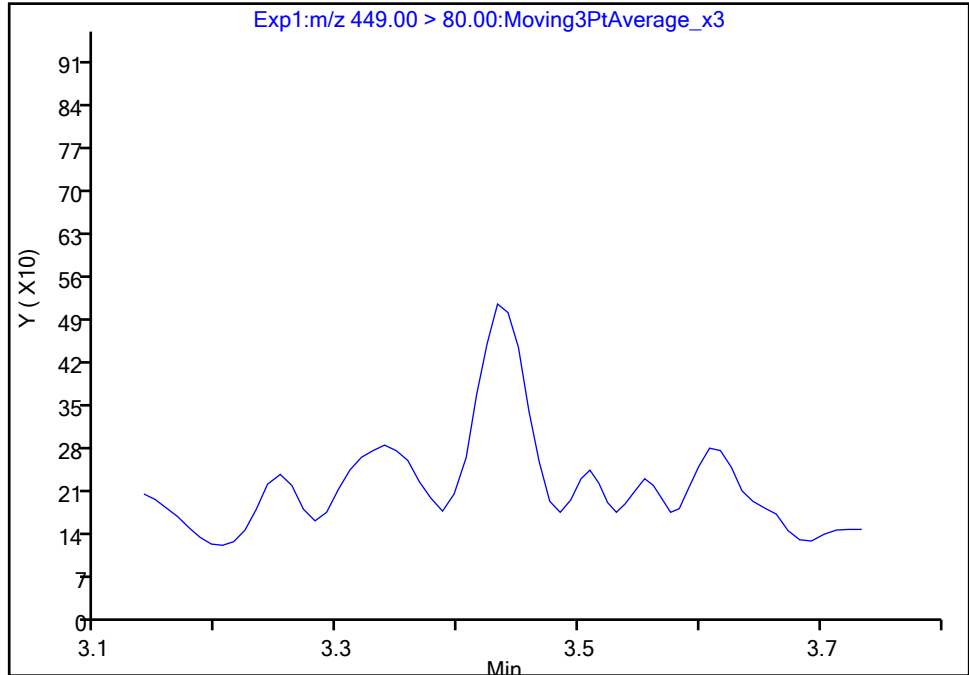
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A24.d
Injection Date: 27-Oct-2020 20:15:26 Instrument ID: LC812
Lims ID: 480-176996-C-5-A Lab Sample ID: 200-176996-5
Client ID: MW-1253 IR
Operator ID: lc812tech ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

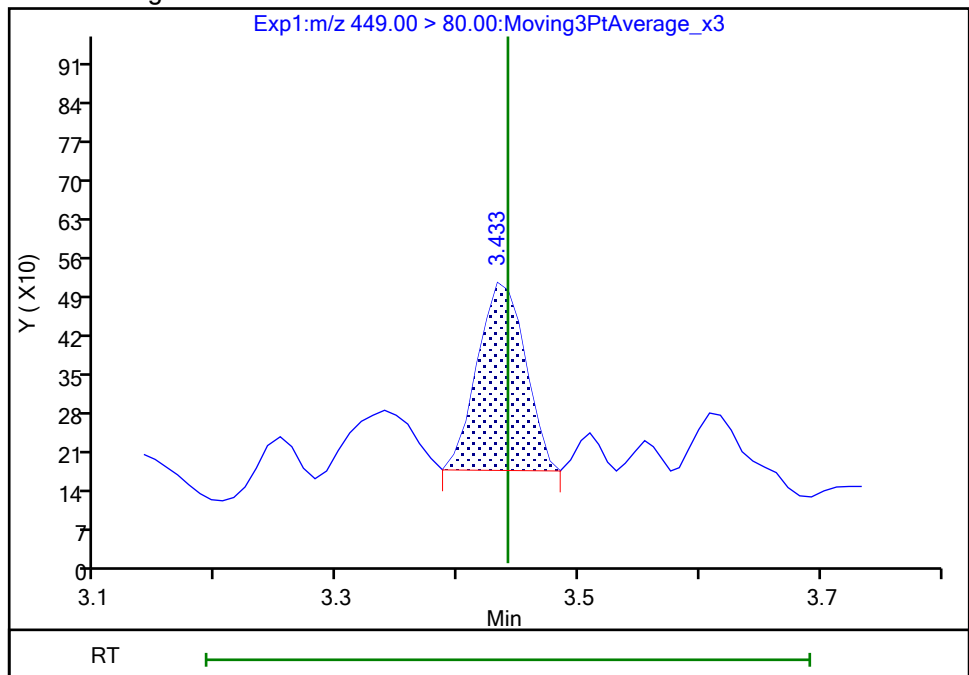
Signal: 1

Not Detected
Expected RT: 3.44

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:03:10

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

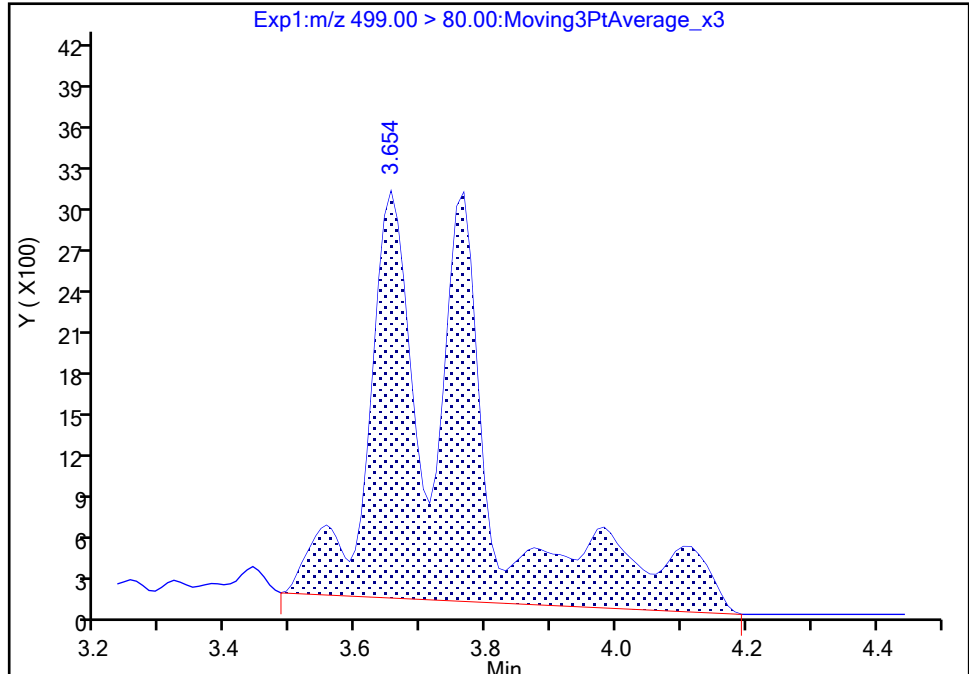
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A24.d				
Injection Date:	27-Oct-2020 20:15:26	Instrument ID:	LC812		
Lims ID:	480-176996-C-5-A	Lab Sample ID:	200-176996-5		
Client ID:	MW-1253 IR				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

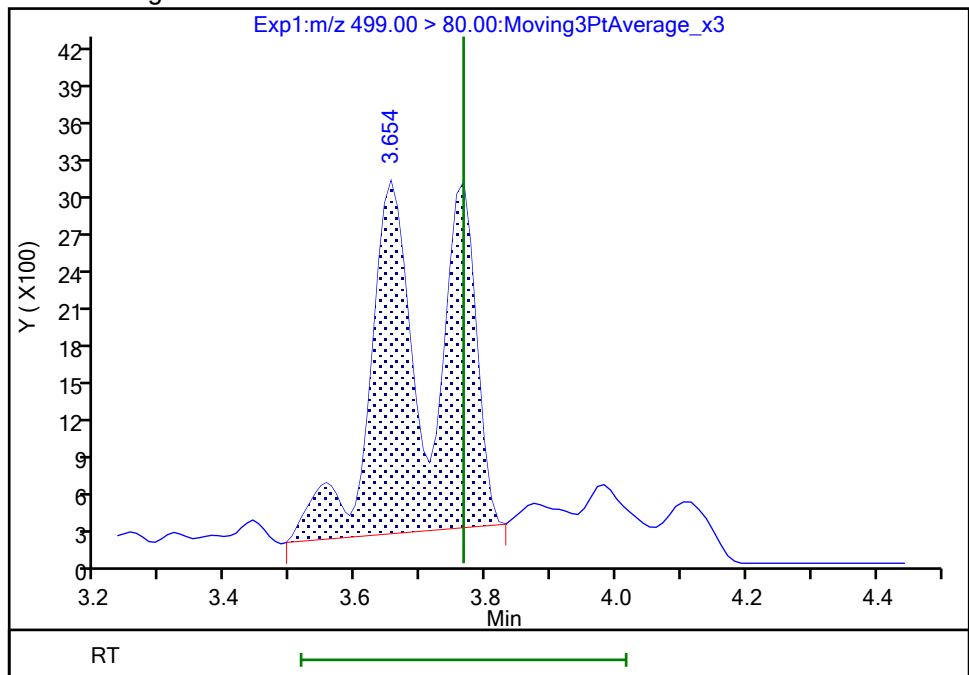
RT: 3.65
Area: 32338
Amount: 0.077819
Amount Units: ng/ml

Processing Integration Results



RT: 3.65
Area: 22058
Amount: 0.053081
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:03:54

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

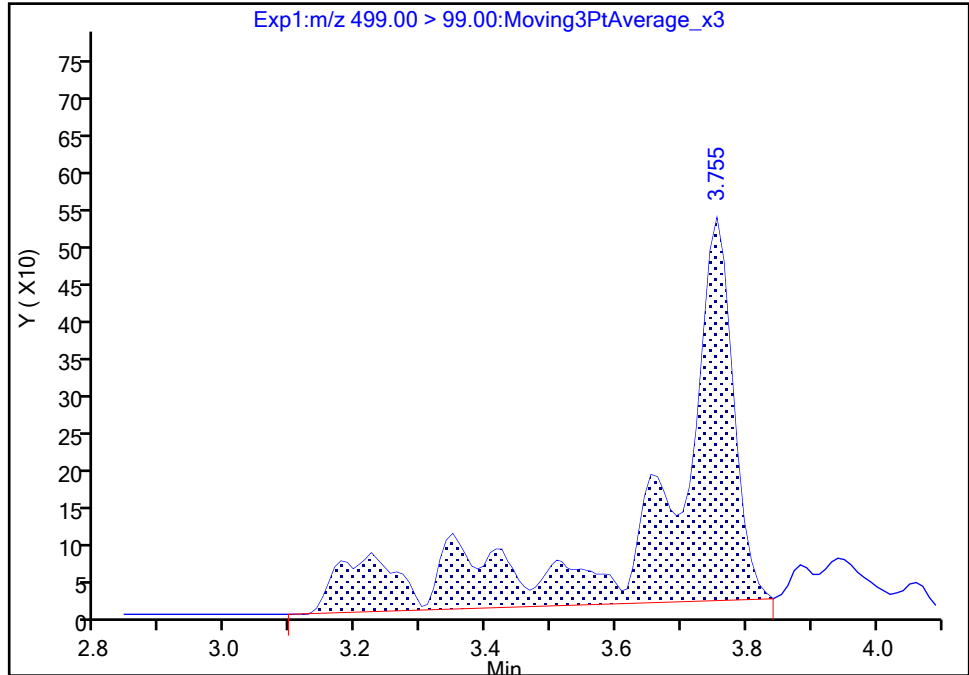
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A24.d
Injection Date: 27-Oct-2020 20:15:26 Instrument ID: LC812
Lims ID: 480-176996-C-5-A Lab Sample ID: 200-176996-5
Client ID: MW-1253 IR
Operator ID: lc812tech ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

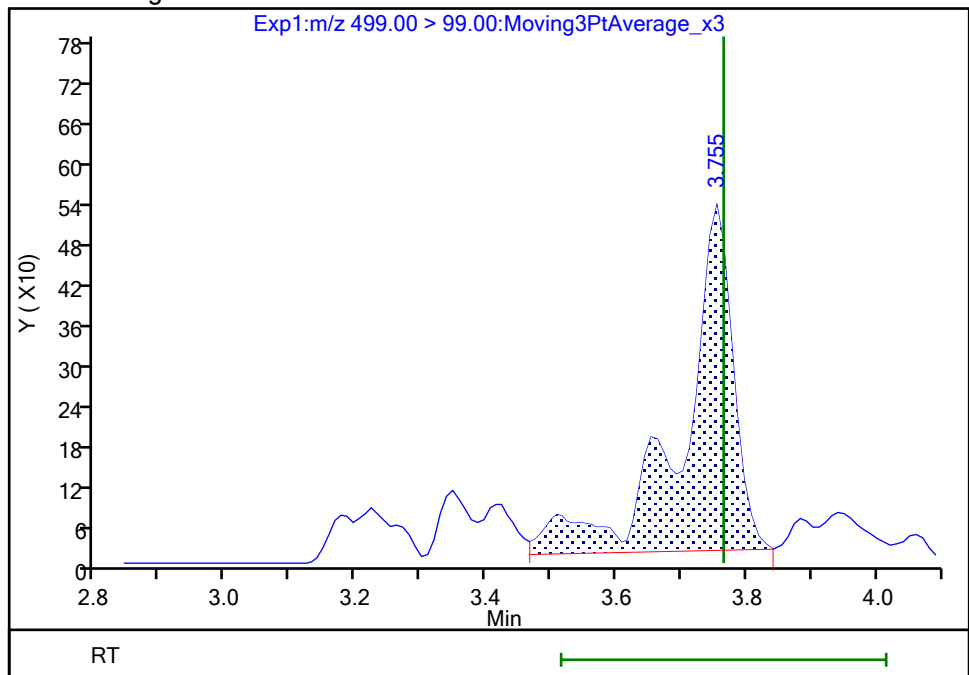
RT: 3.76
Area: 3956
Amount: 0.077819
Amount Units: ng/ml

Processing Integration Results



RT: 3.76
Area: 2844
Amount: 0.053081
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:04:04

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

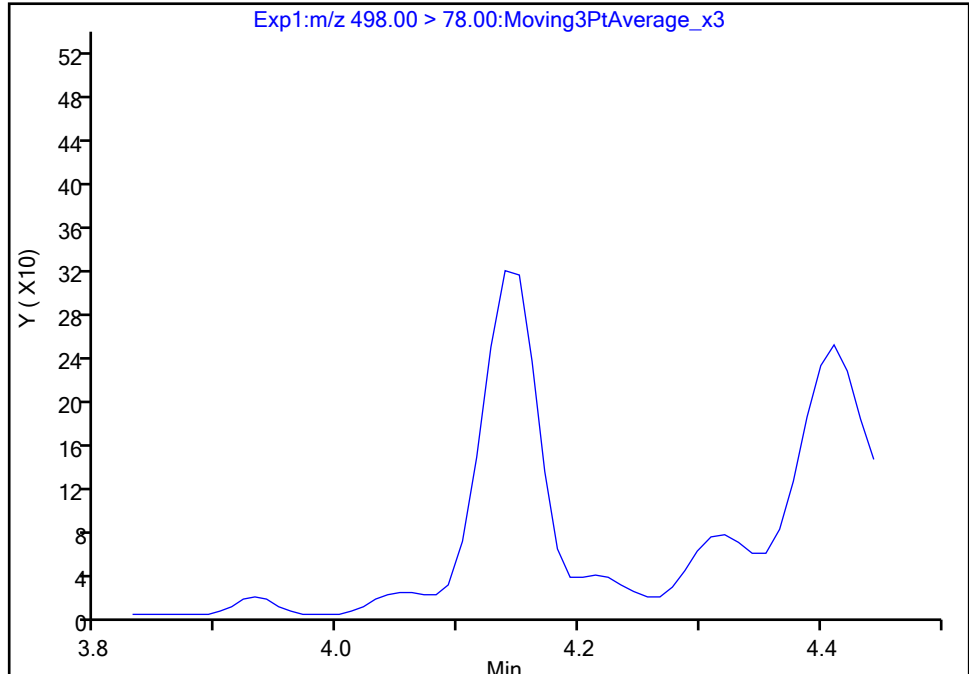
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A24.d
Injection Date: 27-Oct-2020 20:15:26 Instrument ID: LC812
Lims ID: 480-176996-C-5-A Lab Sample ID: 200-176996-5
Client ID: MW-1253 IR
Operator ID: lc812tech ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

22 Perfluorooctanesulfonamide, CAS: 754-91-6

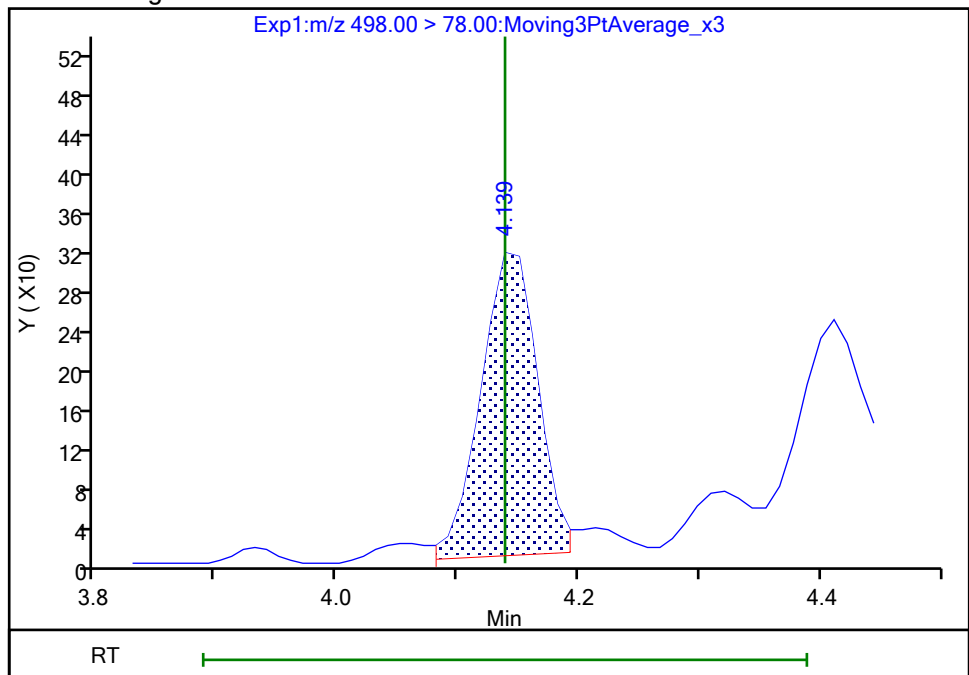
Signal: 1

Not Detected
Expected RT: 4.14

Processing Integration Results



Manual Integration Results



RT: 4.14
Area: 1003
Amount: 0.001874
Amount Units: ng/ml

Eurofins TestAmerica, Burlington

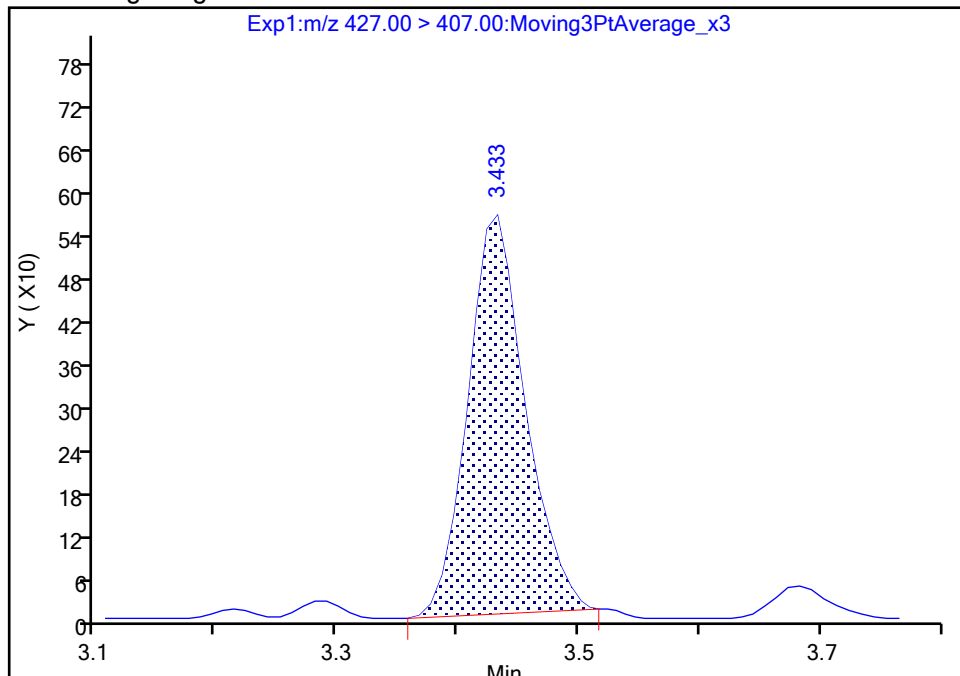
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A24.d
Injection Date: 27-Oct-2020 20:15:26 Instrument ID: LC812
Lims ID: 480-176996-C-5-A Lab Sample ID: 200-176996-5
Client ID: MW-1253 IR
Operator ID: lc812tech ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

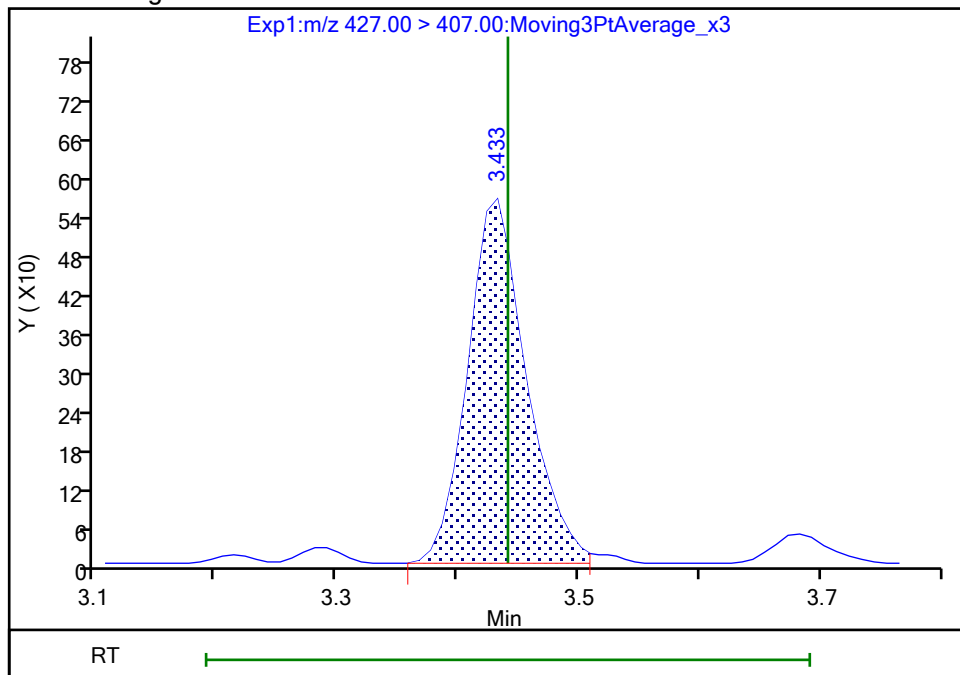
RT: 3.43
Area: 1832
Amount: 0.032490
Amount Units: ng/ml

Processing Integration Results



RT: 3.43
Area: 1888
Amount: 0.033484
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 13:04:37

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

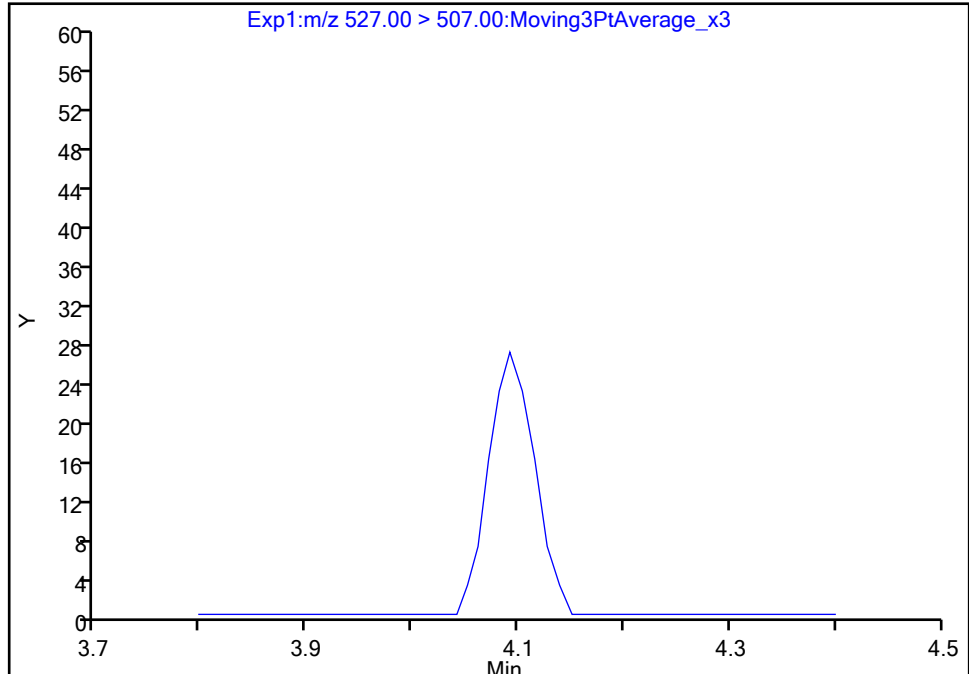
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A24.d
Injection Date: 27-Oct-2020 20:15:26 Instrument ID: LC812
Lims ID: 480-176996-C-5-A Lab Sample ID: 200-176996-5
Client ID: MW-1253 IR
Operator ID: lc812tech ALS Bottle#: 21 Worklist Smp#: 24
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

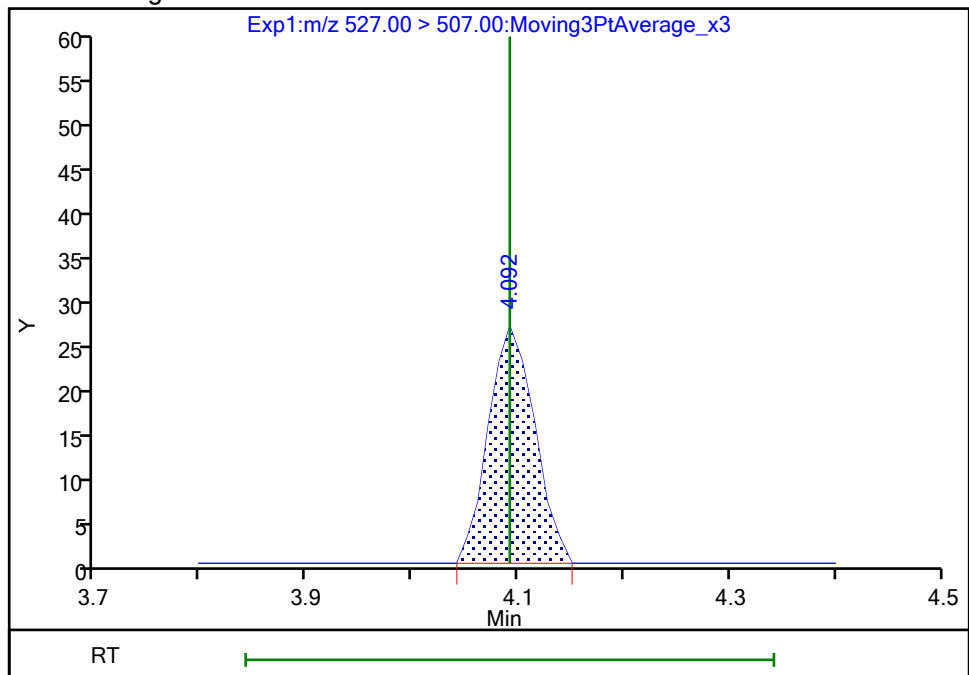
Not Detected
Expected RT: 4.09

Processing Integration Results



RT: 4.09
Area: 81
Amount: 0.002651
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:06:24

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

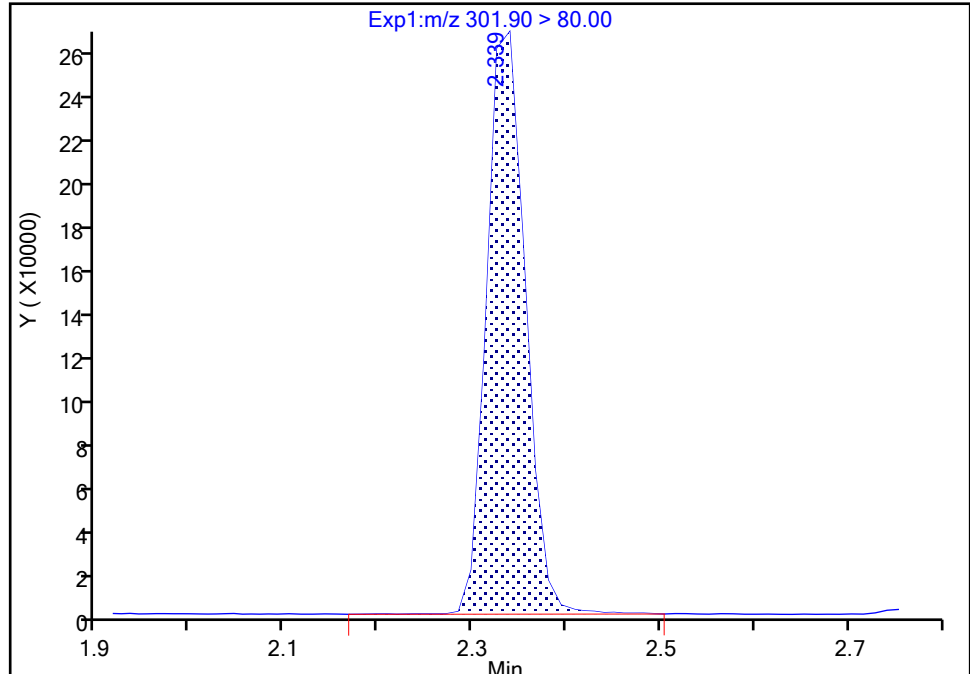
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A24.d				
Injection Date:	27-Oct-2020 20:15:26	Instrument ID:	LC812		
Lims ID:	480-176996-C-5-A	Lab Sample ID:	200-176996-5		
Client ID:	MW-1253 IR				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

D 47 13C3 PFBS, CAS: STL02337

Signal: 1

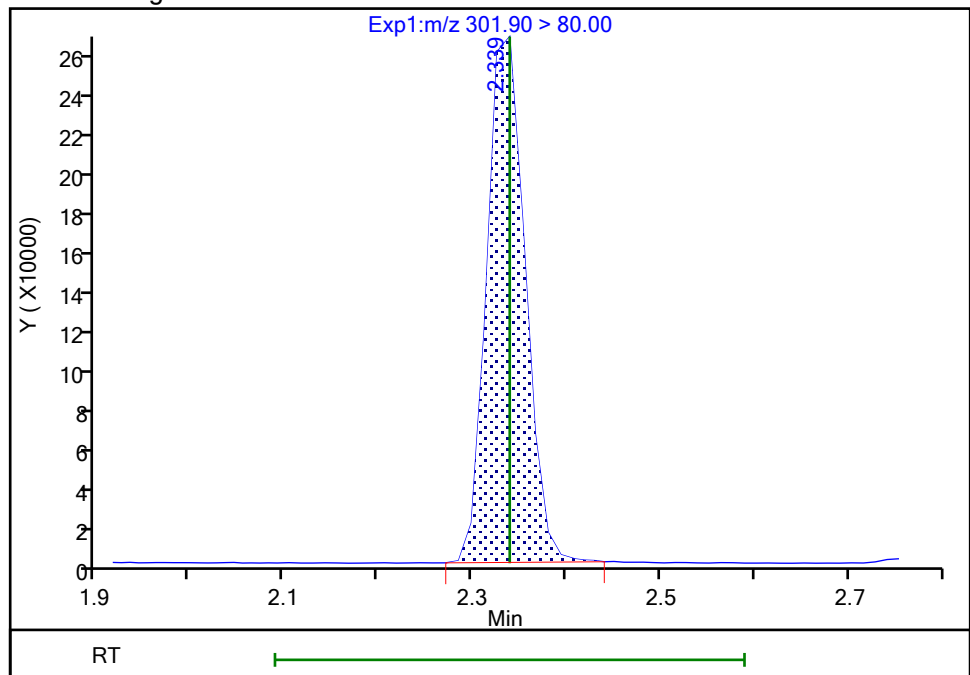
RT: 2.34
Area: 762468
Amount: 1.127375
Amount Units: ng/ml

Processing Integration Results



RT: 2.34
Area: 756585
Amount: 1.118677
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:01:37

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins TestAmerica, Burlington</u>	Job No.: <u>480-176996-1</u>
SDG No.: _____	
Client Sample ID: <u>B1219-W06</u>	Lab Sample ID: <u>480-176996-6</u>
Matrix: <u>Water</u>	Lab File ID: <u>PA201027A25.d</u>
Analysis Method: <u>537 (modified)</u>	Date Collected: <u>10/21/2020 14:00</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/27/2020 09:15</u>
Sample wt/vol: <u>298.6(mL)</u>	Date Analyzed: <u>10/27/2020 20:23</u>
Con. Extract Vol.: <u>10(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>20(uL)</u>	GC Column: <u>C-18</u> ID: <u>4.6 (mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>160481</u>	Units: <u>ng/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	7.4		4.2	0.95
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		1.7	0.90
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		1.7	0.69
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.60	J I	1.7	0.39
335-67-1	Perfluorooctanoic acid (PFOA)	1.3	J	1.7	0.82
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.7	0.49
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.7	0.39
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.61
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.7	0.39
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.36
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.49
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.71	J	1.7	0.53
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.56
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.33
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.94	J	1.7	0.73
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.40
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.48
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.2	0.66
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.2	0.78
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.2	0.60
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.55

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Client Sample ID: B1219-W06 Lab Sample ID: 480-176996-6
 Matrix: Water Lab File ID: PA201027A25.d
 Analysis Method: 537 (modified) Date Collected: 10/21/2020 14:00
 Extraction Method: 3535 Date Extracted: 10/27/2020 09:15
 Sample wt/vol: 298.6(mL) Date Analyzed: 10/27/2020 20:23
 Con. Extract Vol.: 10(mL) Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: C-18 ID: 4.6 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 160481 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	100		50-150
STL01892	13C4 PFHpA	102		50-150
STL00990	13C4 PFOA	93		50-150
STL00991	13C4 PFOS	85		50-150
STL00995	13C5 PFNA	85		50-150
STL00992	13C4 PFBA	95		25-150
STL00993	13C2 PFHxA	105		50-150
STL00996	13C2 PFDA	61		50-150
STL00997	13C2 PFUnA	50		50-150
STL00998	13C2 PFDoA	38	*5	50-150
STL01056	13C8 FOSA	71		25-150
STL01893	13C5 PFPeA	102		25-150
STL02116	13C2 PFTeDA	41	*5	50-150
STL02118	d3-NMeFOSAA	53		50-150
STL02117	d5-NEtFOSAA	46	*5	50-150
STL02279	M2-6:2 FTS	107		25-150
STL02280	M2-8:2 FTS	68		25-150
STL02337	13C3 PFBS	96		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A25.d
 Lims ID: 480-176996-C-6-A
 Client ID: B1219-W06
 Sample Type: Client
 Inject. Date: 27-Oct-2020 20:23:44 ALS Bottle#: 22 Worklist Smp#: 25
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: 480-176996-C-6-A
 Misc. Info.: 200-0043412-025 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Method: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 28-Oct-2020 13:19:45 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1652

First Level Reviewer: khanphomeea

Date: 28-Oct-2020 10:11:20

Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.981	1.981	0.0	0.574	817158	1.19		94.9	10511	
2 Perfluorobutanoic acid										M
212.90 > 169.00	1.981	1.990	-0.009	1.000	135615	0.2219			36.9	M
D 3 13C5 PFPeA										
267.90 > 223.00	2.326	2.326	0.0	0.674	631746	1.28		102	2063	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.312	2.326	-0.014	0.994	7558	0.0142			0.3	M
D 47 13C3 PFBS										M
301.90 > 80.00	2.340	2.339	0.001	0.678	673911	1.12		96.4	62699	M
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.340	2.353	-0.013	1.000	12202	0.0211	Target=2.07		5.4	
298.90 > 99.00	2.340	2.353	-0.013	1.000	7378		1.65(1.04-3.11)		2.8	
D 7 13C2 PFHxA										
315.00 > 270.00	2.691	2.703	-0.012	0.780	669930	1.32		105	3979	
6 Perfluorohexanoic acid										M
313.00 > 269.00	2.703	2.703	0.0	1.005	8695	0.0161	Target=12.44		1.5	M
313.00 > 119.00	2.691	2.703	-0.012	1.000	640		13.59(6.22-18.66)		2.0	M
D 11 18O2 PFHxS										
403.00 > 84.00	3.073	3.084	-0.011	0.891	509440	1.18		99.8	2789	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.073	3.084	-0.011	1.000	7028	0.0148	Target=4.60		7.2	
399.00 > 99.00	3.073	3.084	-0.011	1.000	1572		4.47(2.30-6.91)		2.4	
D 9 13C4 PFHpA										
367.00 > 322.00	3.084	3.084	0.0	0.894	591123	1.28		102	3161	
10 Perfluoroheptanoic acid										RM
363.00 > 319.00	3.084	3.084	0.0	1.000	8482	0.0179	Target=3.34		1.5	RM
363.00 > 169.00	3.073	3.084	-0.011	0.996	1553		5.46(1.67-5.01)		5.0	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2 FTS										
429.00 > 81.00	3.433	3.441	-0.008	0.995	73070	1.27		107	297	
13 1H,1H,2H,2H-perfluorooctanesulfo										M
427.00 > 407.00	3.433	3.441	-0.008	1.000	204	0.004154			7.6	M
D 14 13C4 PFOA										
417.00 > 372.00	3.450	3.450	0.0	1.000	550624	1.16		93.0	4156	
* 62 13C2 PFOA										
415.00 > 370.00	3.450	3.450	0.0		601202	1.25			3297	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.450	3.458	-0.008	1.000	17366	0.0382	Target=2.29		5.5	M
413.00 > 169.00	3.450	3.458	-0.008	1.000	10723		1.62(1.14-3.43)		19.0	M
D 18 13C4 PFOS										
503.00 > 80.00	3.765	3.765	0.0	1.091	357663	1.01		84.8	1280	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.654	3.765	-0.111	0.970	9087	0.0279	Target=7.10		7.9	M
499.00 > 99.00	3.654	3.765	-0.111	0.970	1157		7.85(3.55-10.64)		5.3	M
D 19 13C5 PFNA										
468.00 > 423.00	3.786	3.786	0.0	1.098	422766	1.06		84.8	3008	
20 Perfluorononanoic acid										RM
463.00 > 419.00	3.786	3.786	0.0	1.000	3930	0.0114	Target=5.83		1.2	RM
463.00 > 169.00	3.765	3.786	-0.021	0.994	139		28.27(2.91-8.74)		3.8	M
D 23 13C2 PFDA										
515.00 > 470.00	4.072	4.082	-0.010	1.180	290868	0.7602		60.8	2679	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.092	4.092	0.0	1.186	55388	0.8153		68.1	199	
D 21 13C8 FOSA										
506.00 > 78.00	4.139	4.139	0.0	1.200	550367	0.8926		71.4	3071	
22 Perfluorooctanesulfonamide										M
498.00 > 78.00	4.139	4.139	0.0	1.000	888	0.002157			5.0	M
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.214	4.214	0.0	1.221	14436	0.6626		53.0	357	
28 N-methylperfluorooctanesulfonami										M
570.00 > 419.00	4.182	4.224	-0.042	0.993	40	0.003670			0.9	M
D 30 13C2 PFUnA										
565.00 > 520.00	4.343	4.343	0.0	1.259	181774	0.6293		50.3	2619	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.343	4.343	0.0	1.259	13359	0.5704		45.6	238	
D 36 13C2 PFDoA										
615.00 > 570.00	4.561	4.561	0.0	1.322	143850	0.4712		37.7	2842	
D 43 13C2 PFTeDA										
715.00 > 670.00	4.969	4.969	0.0	1.440	111140	0.5111		40.9	1973	
42 Perfluorotetradecanoic acid										RM
713.00 > 169.00	4.969	4.969	0.0	1.000	49	0.002406	Target=1.06		2.8	RM
713.00 > 219.00	4.959	4.969	-0.010	0.998	24		2.04(0.53-1.59)		1.2	M

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A25.d

Injection Date: 27-Oct-2020 20:23:44

Instrument ID: LC812

Lims ID: 480-176996-C-6-A

Lab Sample ID: 200-176996-6

Client ID: B1219-W06

Operator ID: lc812tech

ALS Bottle#: 22

Worklist Smp#: 25

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

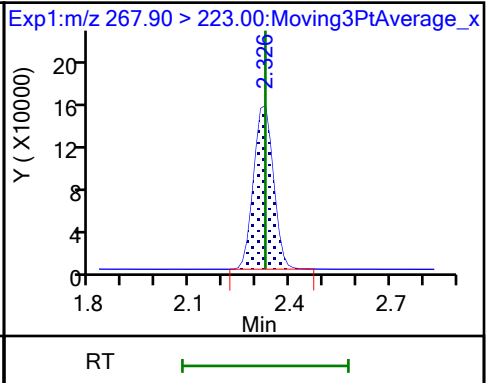
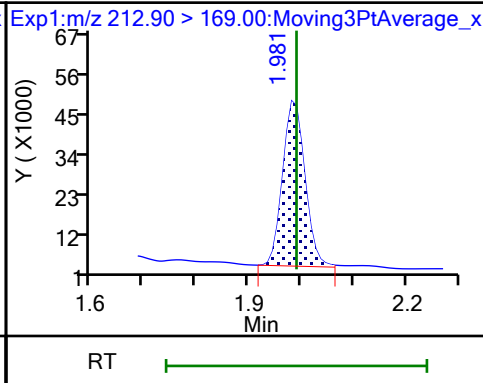
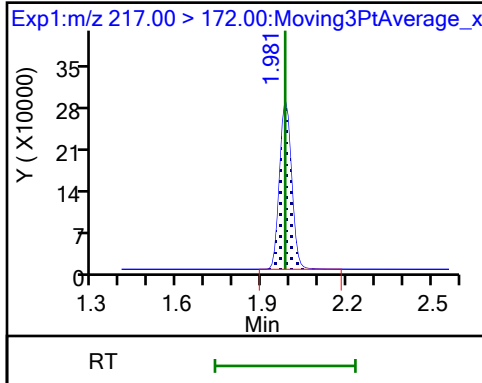
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid (M)

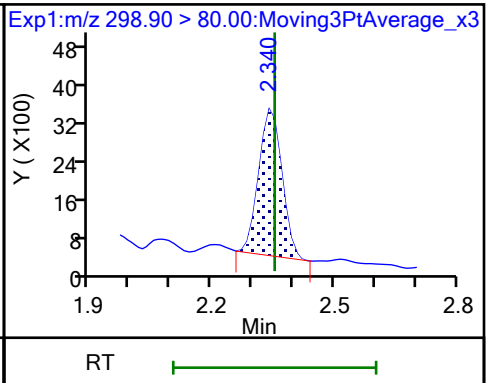
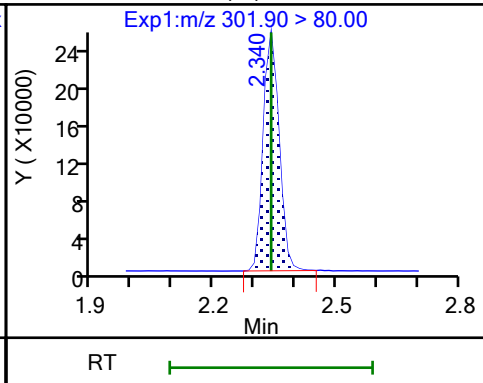
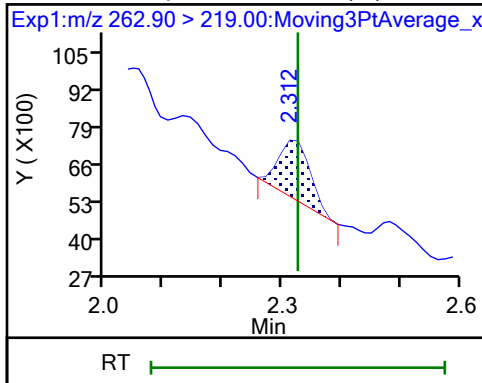
D 3 13C5 PFPeA



4 Perfluoropentanoic acid (M)

D 47 13C3 PFBS (M)

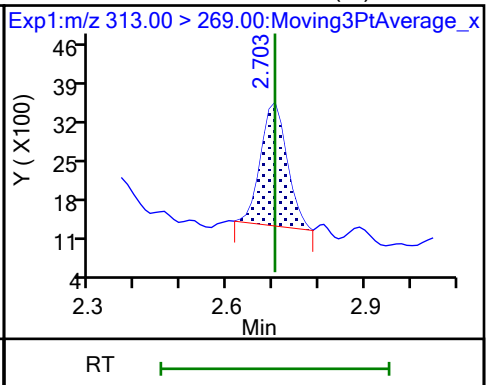
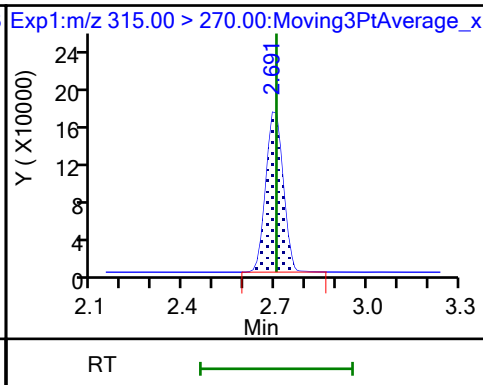
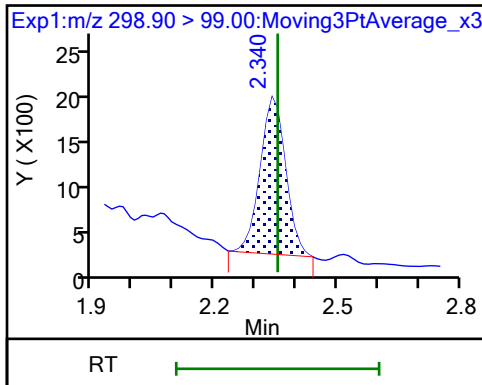
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

D 7 13C2 PFHxA

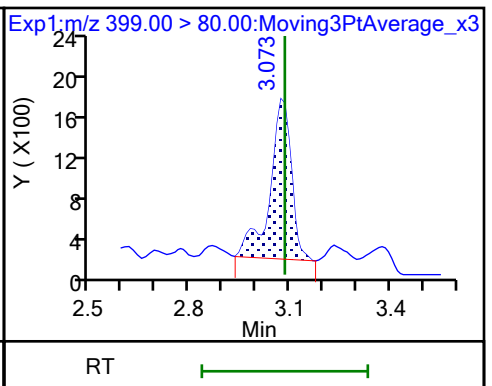
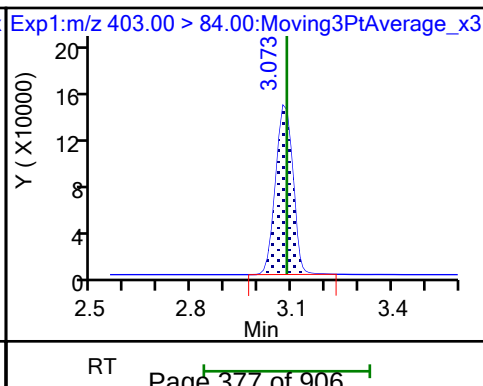
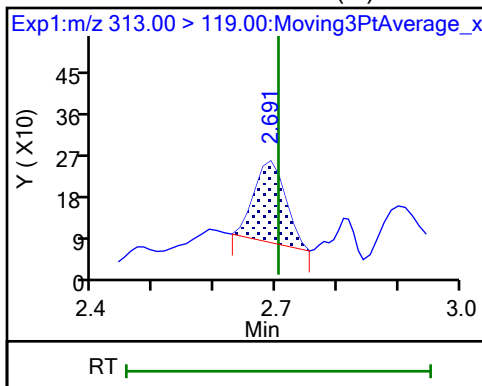
6 Perfluorohexanoic acid (M)

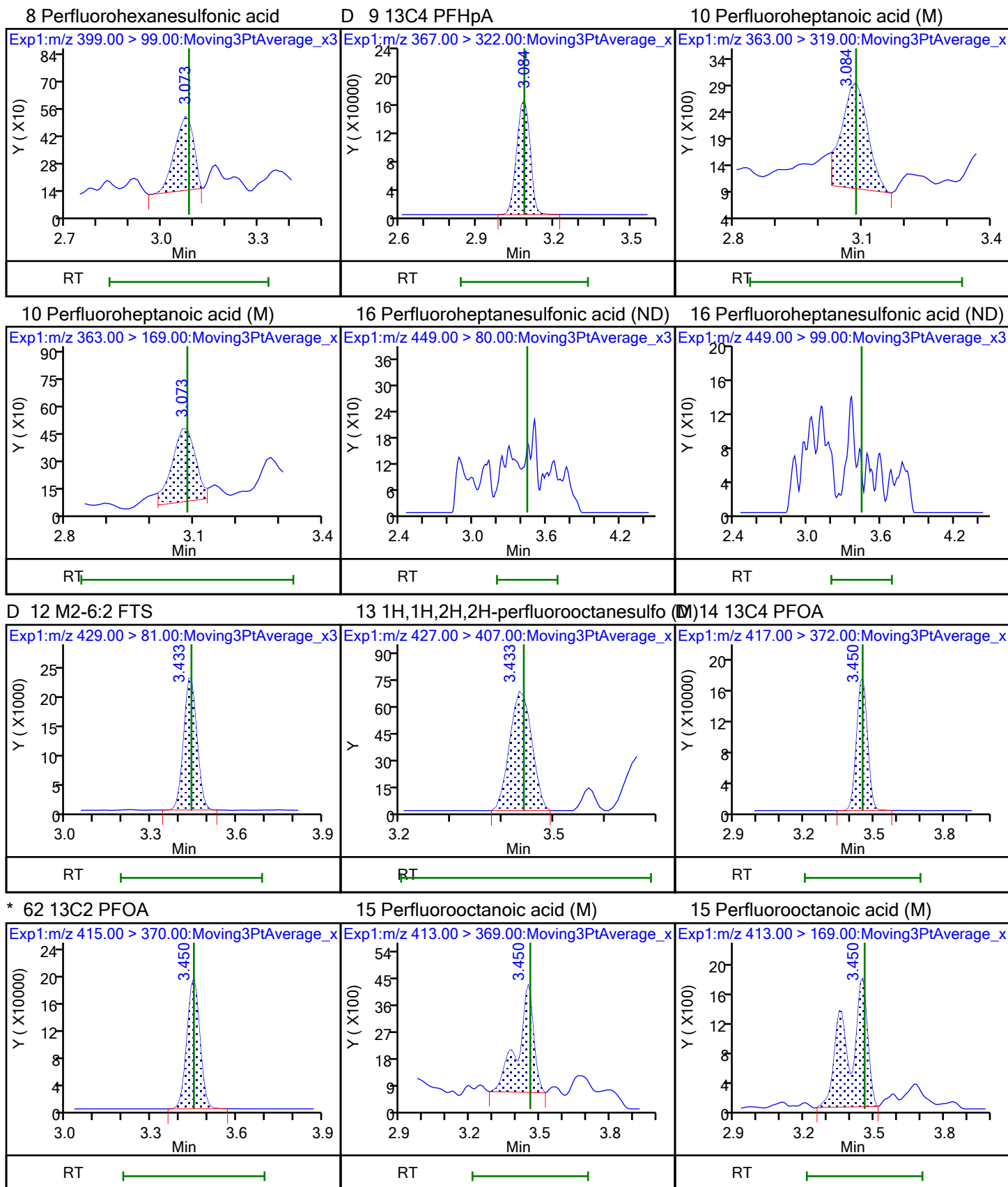


6 Perfluorohexanoic acid (M)

D 11 18O2 PFHxS

8 Perfluorohexanesulfonic acid

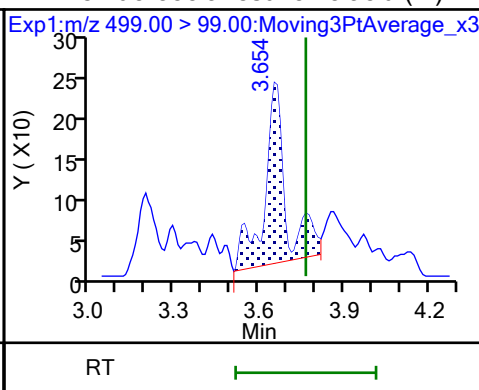
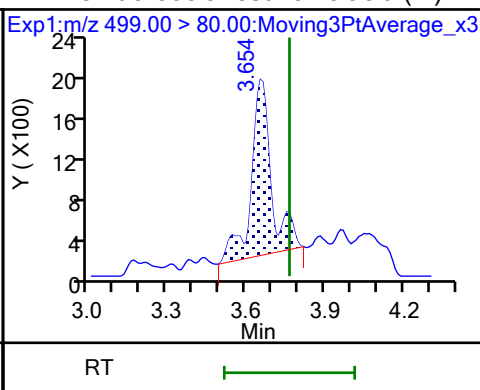
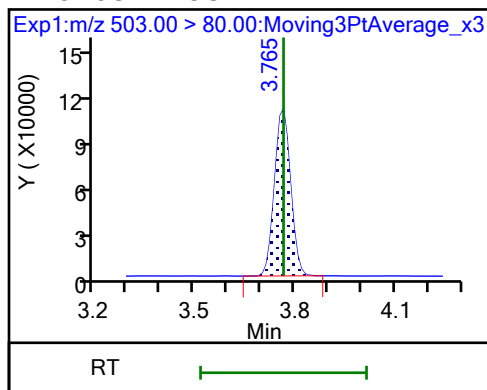




D 18 13C4 PFOS

17 Perfluorooctanesulfonic acid (M)

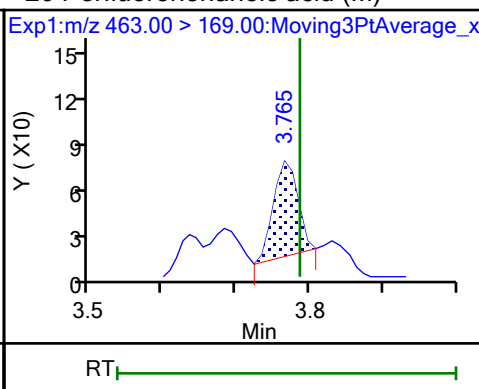
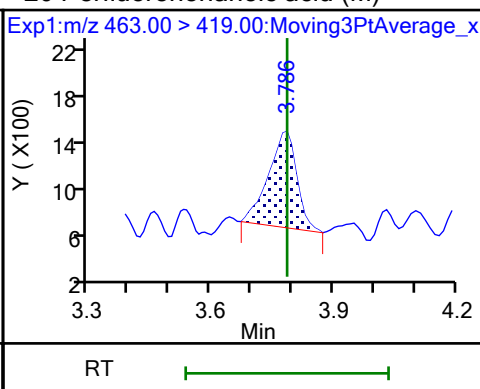
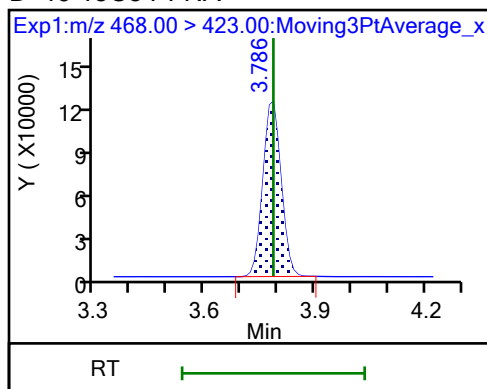
17 Perfluorooctanesulfonic acid (M)



D 19 13C5 PFNA

20 Perfluorononanoic acid (M)

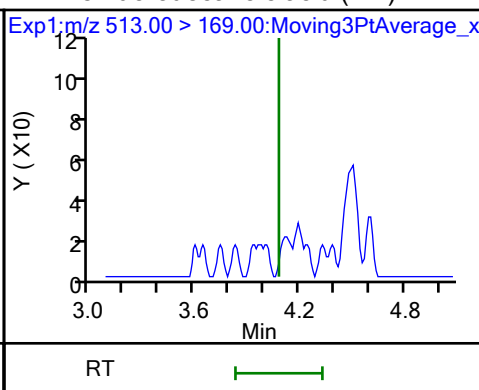
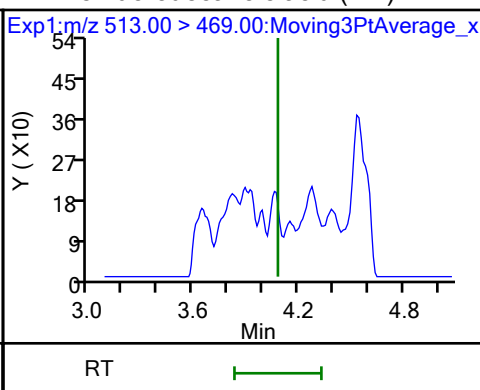
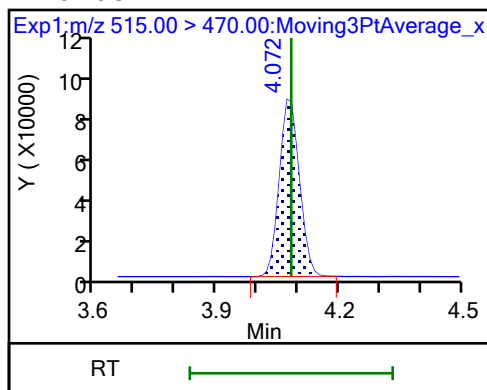
20 Perfluorononanoic acid (M)



D 23 13C2 PFDA

24 Perfluorodecanoic acid (ND)

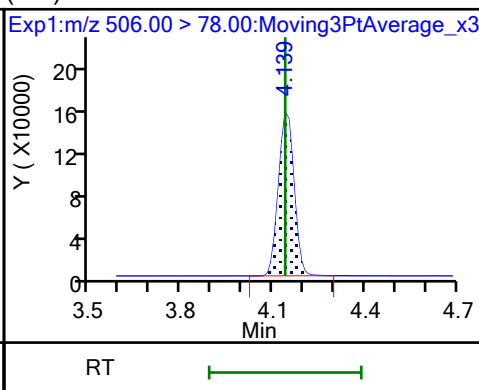
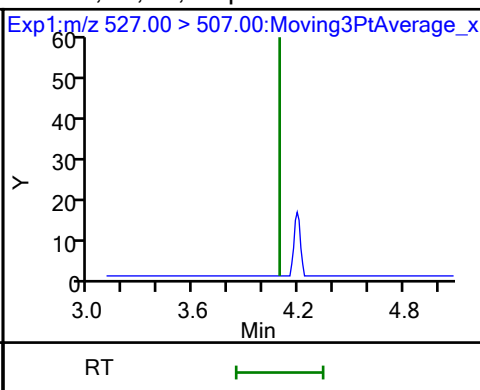
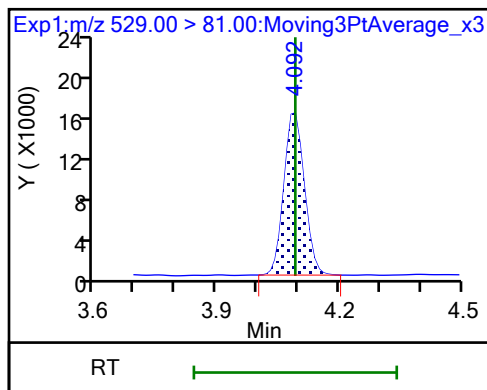
24 Perfluorodecanoic acid (ND)

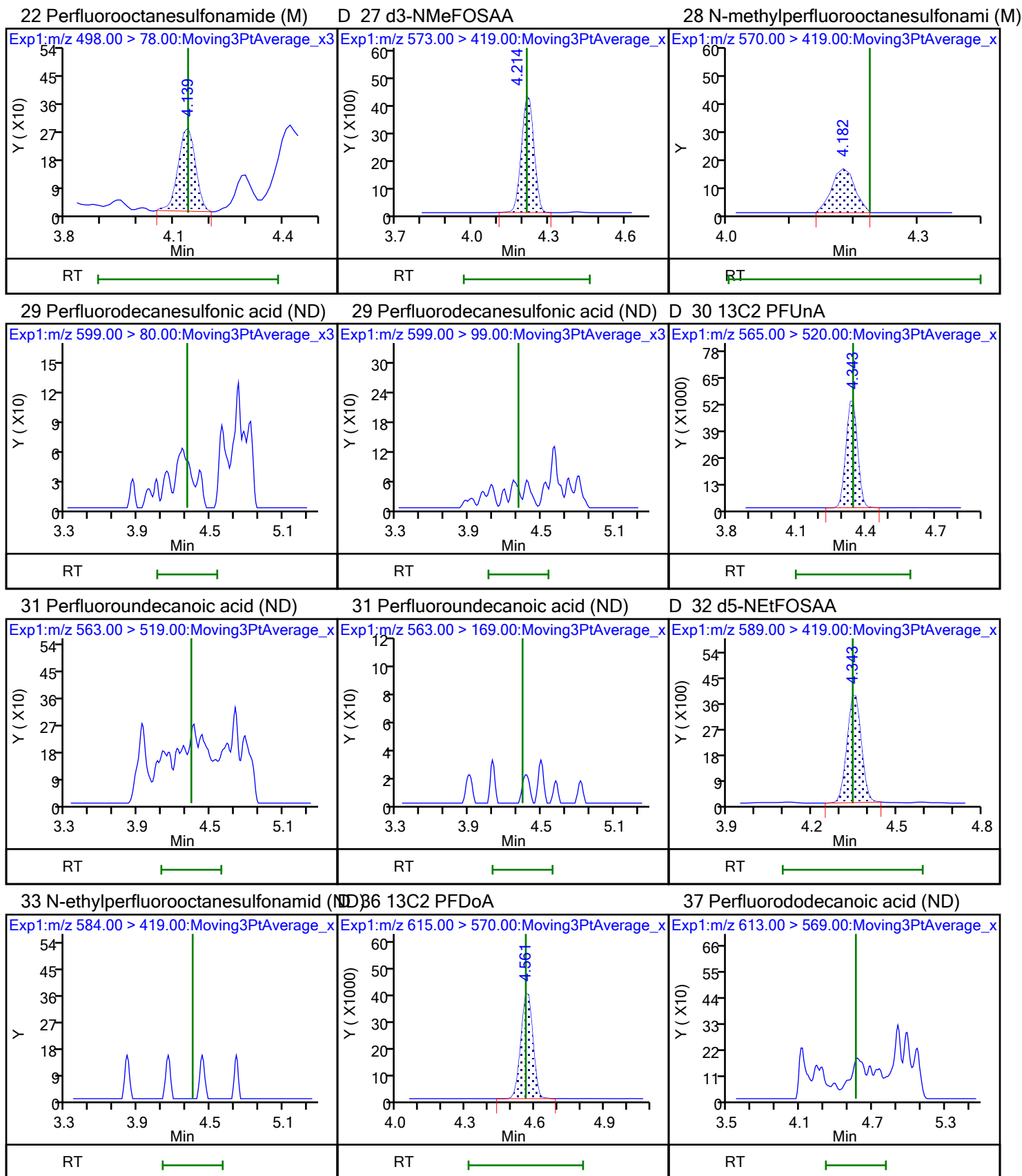


D 26 M2-8:2 FTS

25 1H,1H,2H,2H-perfluorodecanesulfonic acid (ND)

13C8 FOSA





37 Perfluorododecanoic acid (ND)

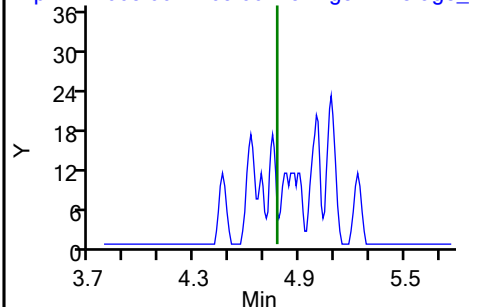
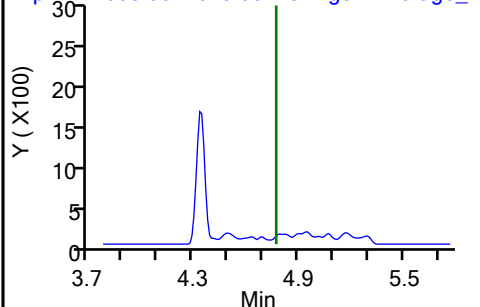
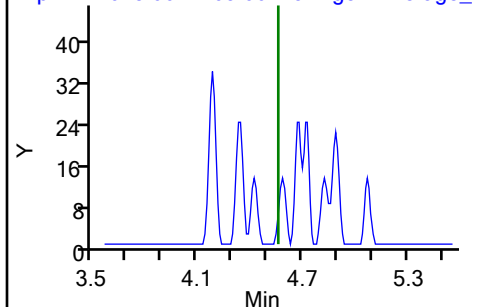
41 Perfluorotridecanoic acid (ND)

41 Perfluorotridecanoic acid (ND)

Exp1:m/z 613.00 > 169.00:Moving3PtAverage_x

Exp1:m/z 663.00 > 619.00:Moving3PtAverage_x

Exp1:m/z 663.00 > 169.00:Moving3PtAverage_x



D 43 13C2 PFTeDA

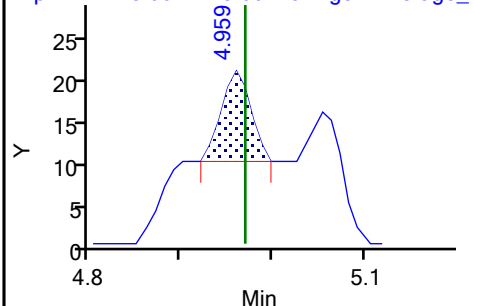
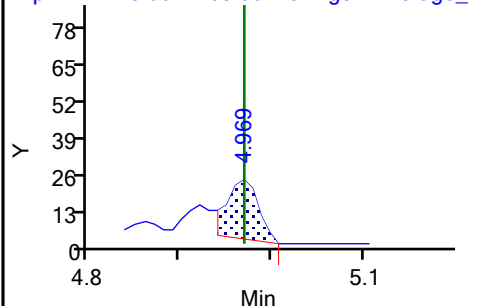
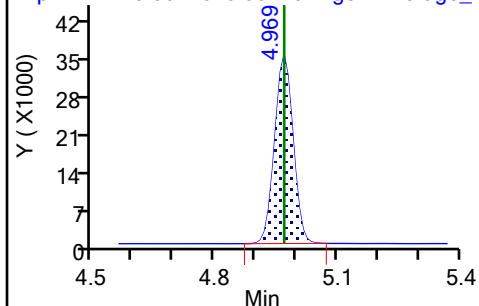
42 Perfluorotetradecanoic acid (M)

42 Perfluorotetradecanoic acid (M)

Exp1:m/z 715.00 > 670.00:Moving3PtAverage_x

Exp1:m/z 713.00 > 169.00:Moving3PtAverage_x

Exp1:m/z 713.00 > 219.00:Moving3PtAverage_x



Eurofins TestAmerica, Burlington

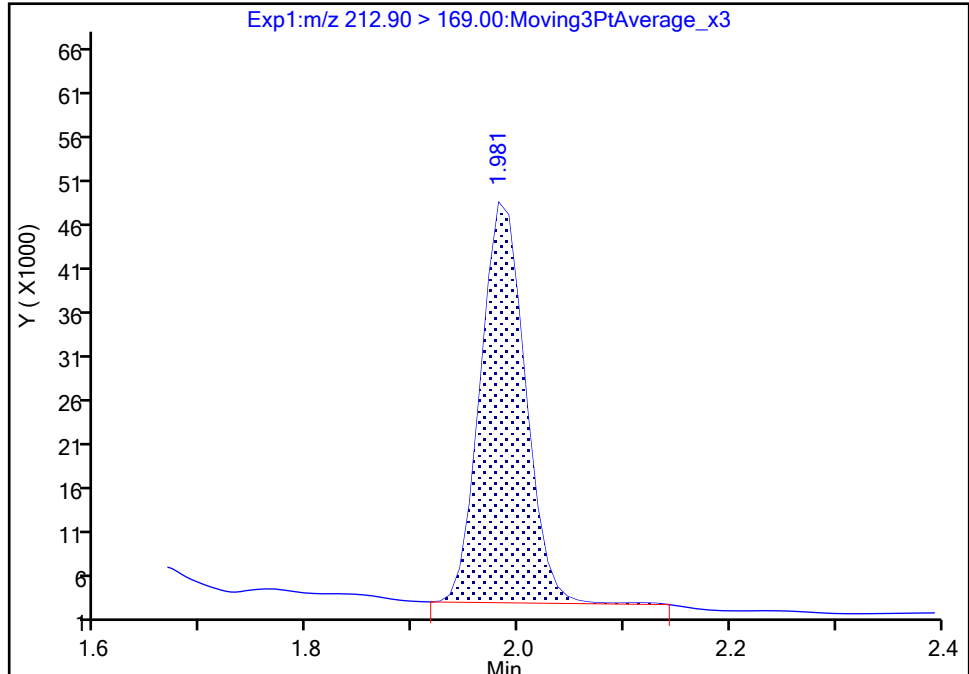
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A25.d				
Injection Date:	27-Oct-2020 20:23:44	Instrument ID:	LC812		
Lims ID:	480-176996-C-6-A	Lab Sample ID:	200-176996-6		
Client ID:	B1219-W06				
Operator ID:	lc812tech	ALS Bottle#:	22	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

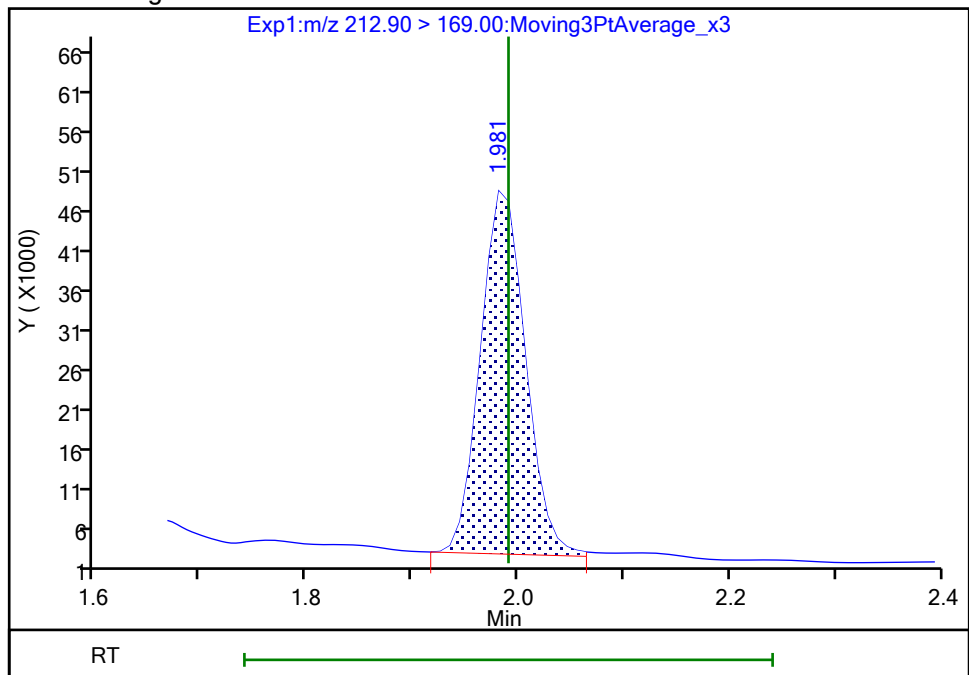
RT: 1.98
Area: 134617
Amount: 0.220299
Amount Units: ng/ml

Processing Integration Results



RT: 1.98
Area: 135615
Amount: 0.221932
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 13:06:51
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 382 of 906

Eurofins TestAmerica, Burlington

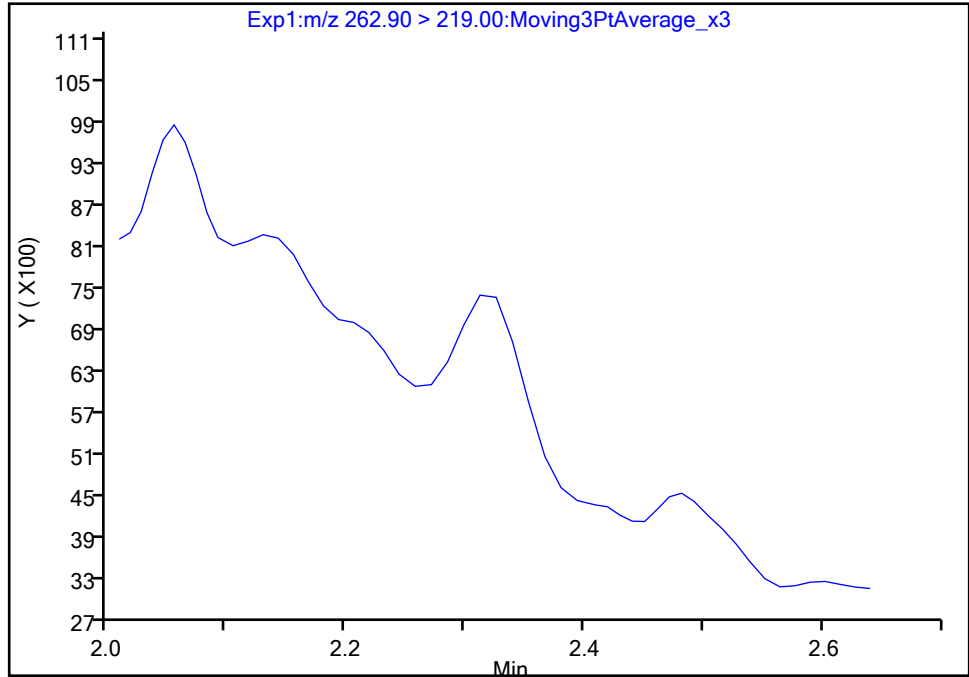
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Injection Date:	27-Oct-2020 20:23:44	Instrument ID:	LC812		
Lims ID:	480-176996-C-6-A	Lab Sample ID:	200-176996-6		
Client ID:	B1219-W06				
Operator ID:	lc812tech	ALS Bottle#:	22	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

4 Perfluoropentanoic acid, CAS: 2706-90-3

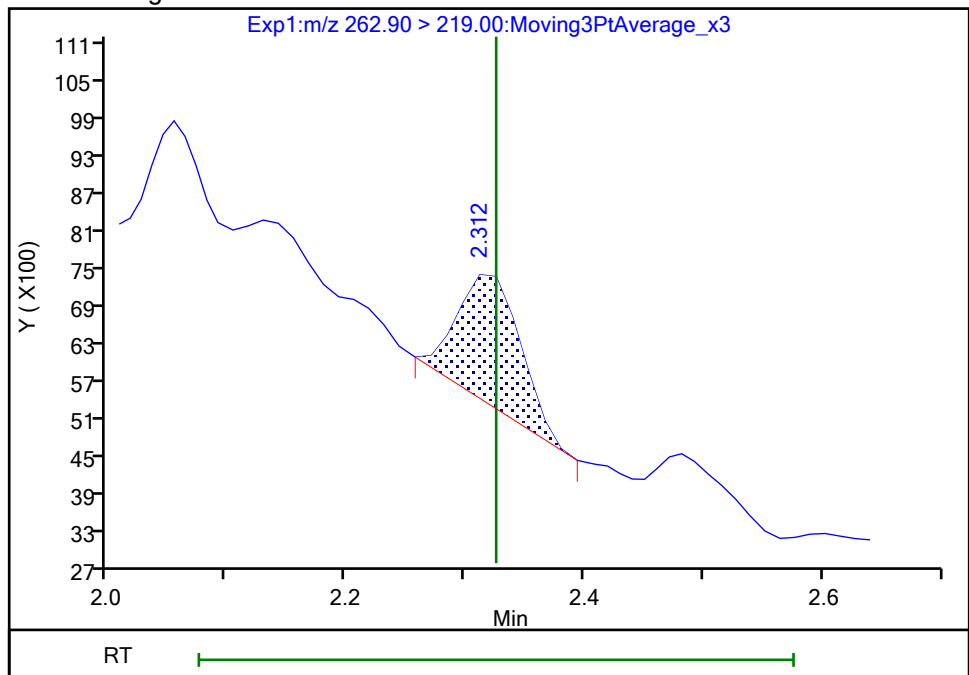
Signal: 1

Not Detected
Expected RT: 2.33

Processing Integration Results

RT: 2.31
Area: 7558
Amount: 0.014160
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:08:13

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

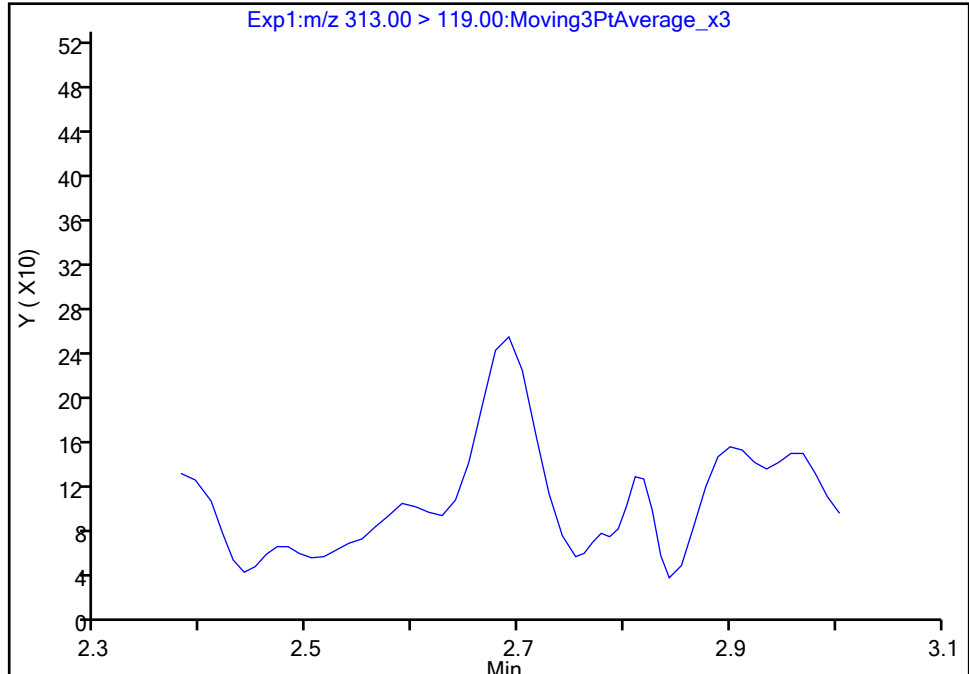
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A25.d
Injection Date: 27-Oct-2020 20:23:44 Instrument ID: LC812
Lims ID: 480-176996-C-6-A Lab Sample ID: 200-176996-6
Client ID: B1219-W06
Operator ID: lc812tech ALS Bottle#: 22 Worklist Smp#: 25
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

6 Perfluorohexanoic acid, CAS: 307-24-4

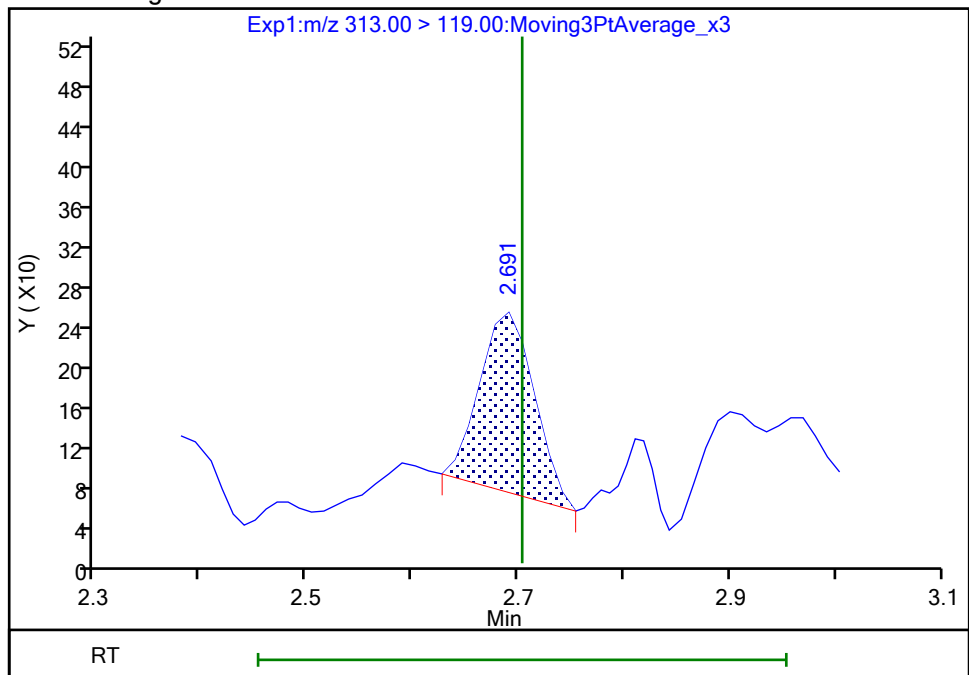
Signal: 2

Not Detected
Expected RT: 2.70

Processing Integration Results



Manual Integration Results



RT: 2.69
Area: 640
Amount: 0.016112
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:08:31

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

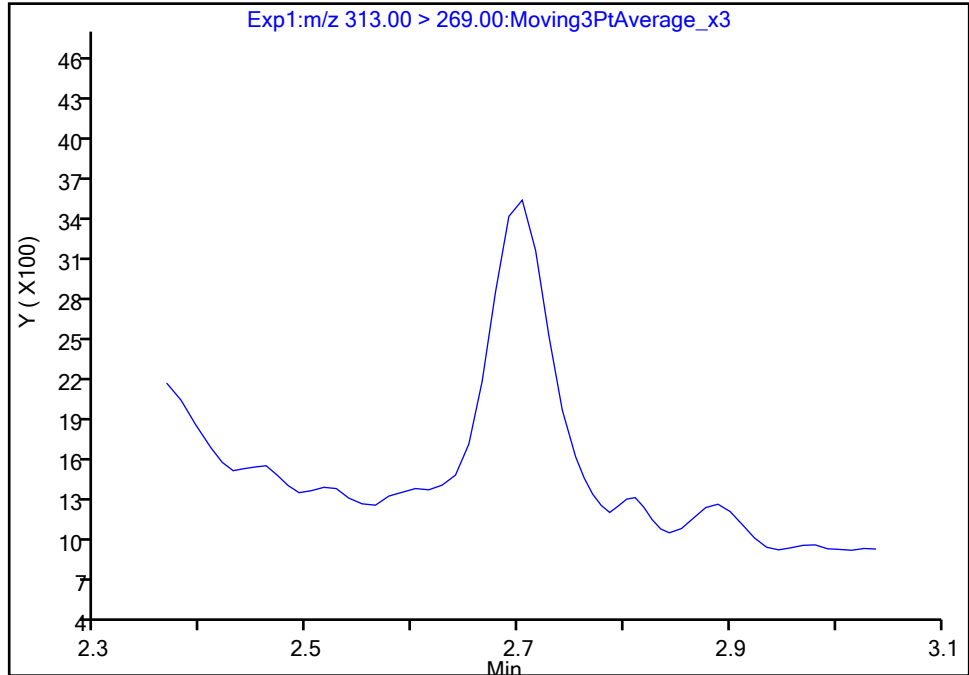
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A25.d				
Injection Date:	27-Oct-2020 20:23:44	Instrument ID:	LC812		
Lims ID:	480-176996-C-6-A	Lab Sample ID:	200-176996-6		
Client ID:	B1219-W06				
Operator ID:	lc812tech	ALS Bottle#:	22	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

6 Perfluorohexanoic acid, CAS: 307-24-4

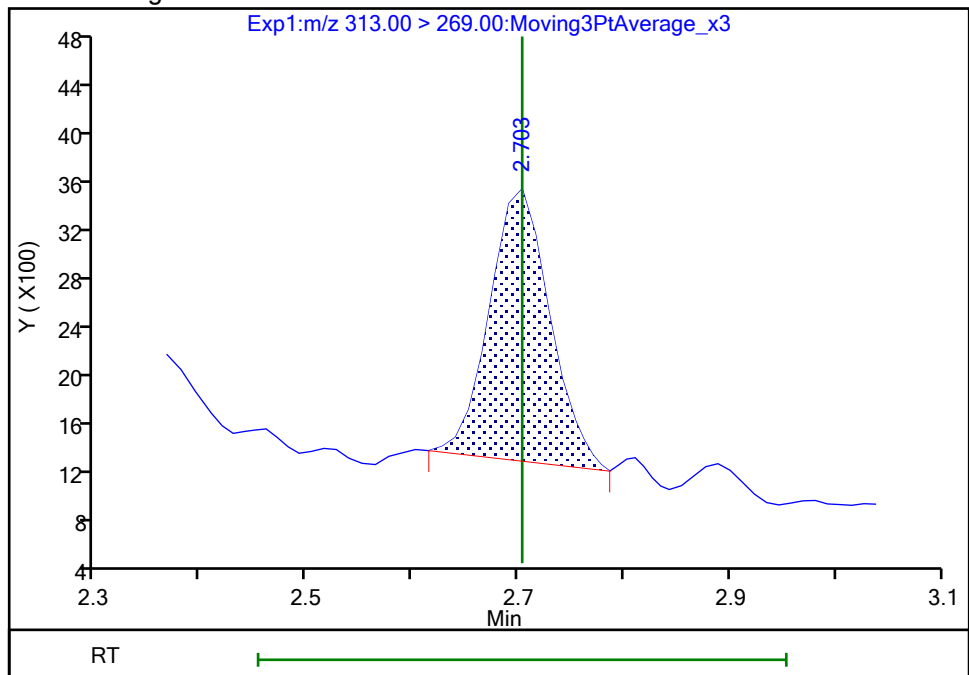
Signal: 1

Not Detected
Expected RT: 2.70

Processing Integration Results



Manual Integration Results



RT: 2.70
Area: 8695
Amount: 0.016112
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:08:34

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 385 of 906

Eurofins TestAmerica, Burlington

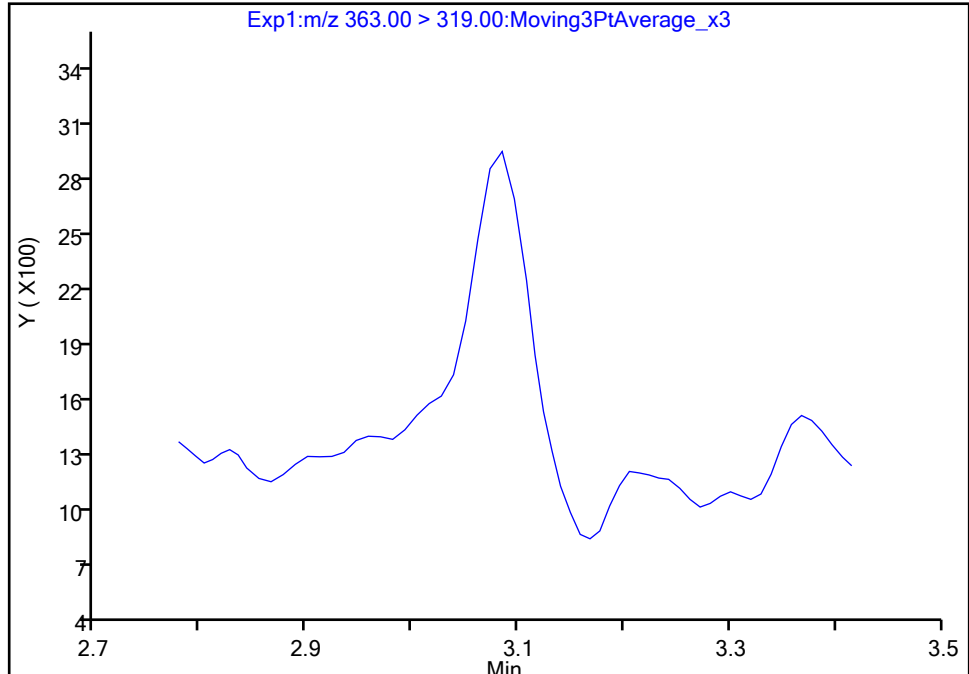
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A25.d				
Injection Date:	27-Oct-2020 20:23:44	Instrument ID:	LC812		
Lims ID:	480-176996-C-6-A	Lab Sample ID:	200-176996-6		
Client ID:	B1219-W06				
Operator ID:	lc812tech	ALS Bottle#:	22	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

10 Perfluoroheptanoic acid, CAS: 375-85-9

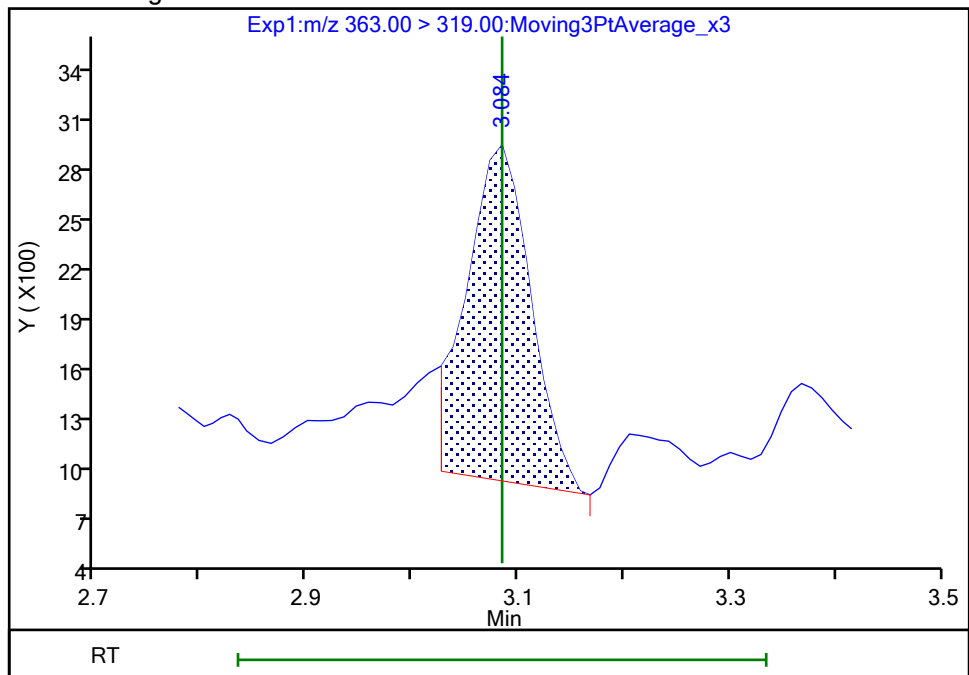
Signal: 1

Not Detected
Expected RT: 3.08

Processing Integration Results



Manual Integration Results



RT: 3.08
Area: 8482
Amount: 0.017899
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:09:06

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

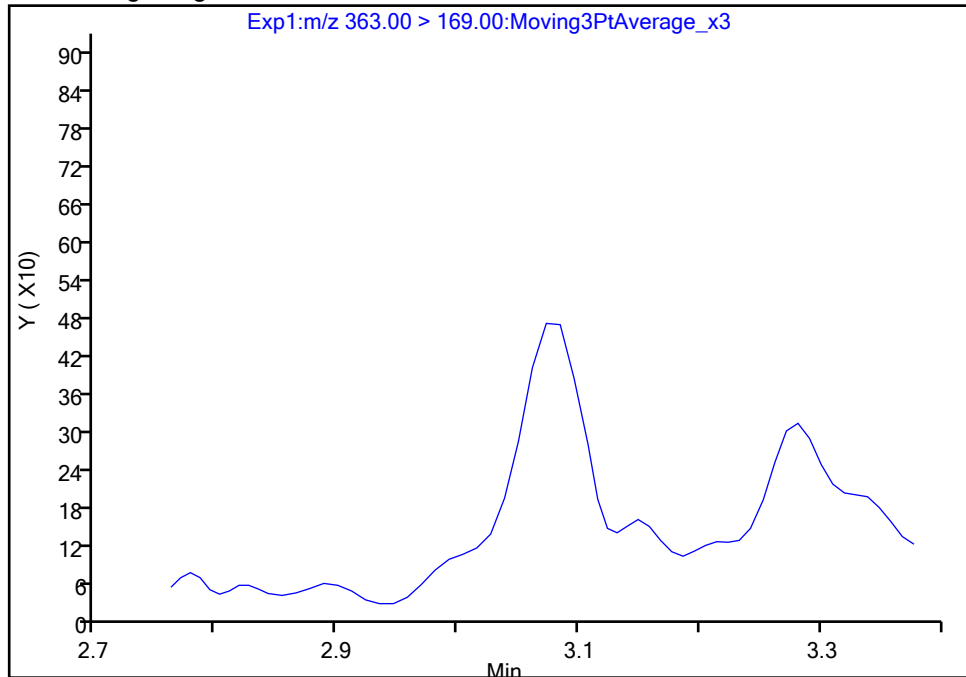
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A25.d
Injection Date: 27-Oct-2020 20:23:44 Instrument ID: LC812
Lims ID: 480-176996-C-6-A Lab Sample ID: 200-176996-6
Client ID: B1219-W06
Operator ID: lc812tech ALS Bottle#: 22 Worklist Smp#: 25
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

10 Perfluoroheptanoic acid, CAS: 375-85-9

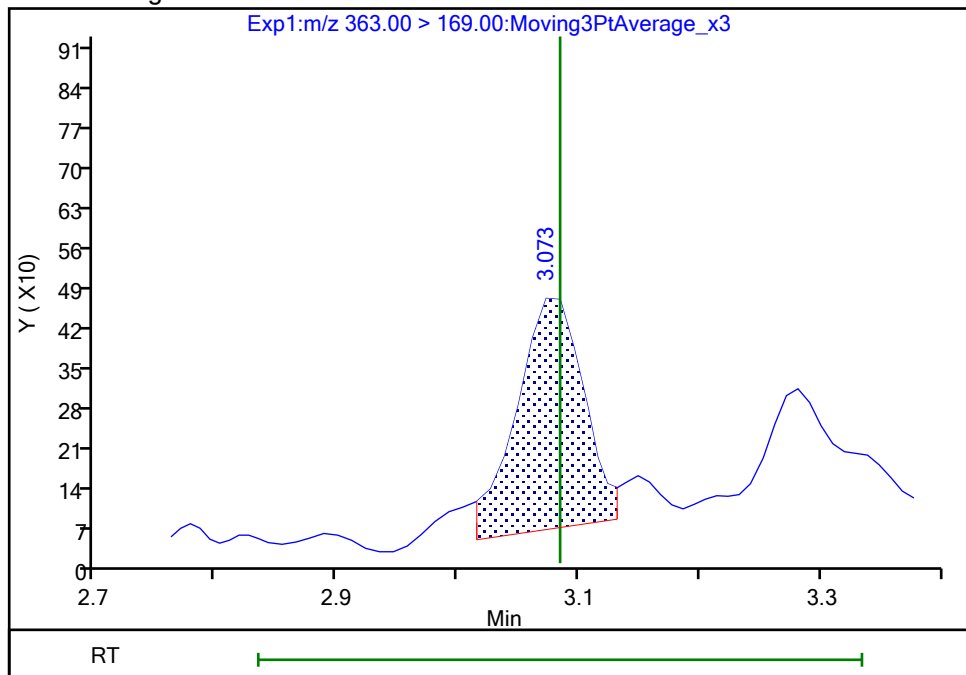
Signal: 2

Not Detected
Expected RT: 3.08

Processing Integration Results



Manual Integration Results



RT: 3.07
Area: 1553
Amount: 0.017899
Amount Units: ng/ml

Eurofins TestAmerica, Burlington

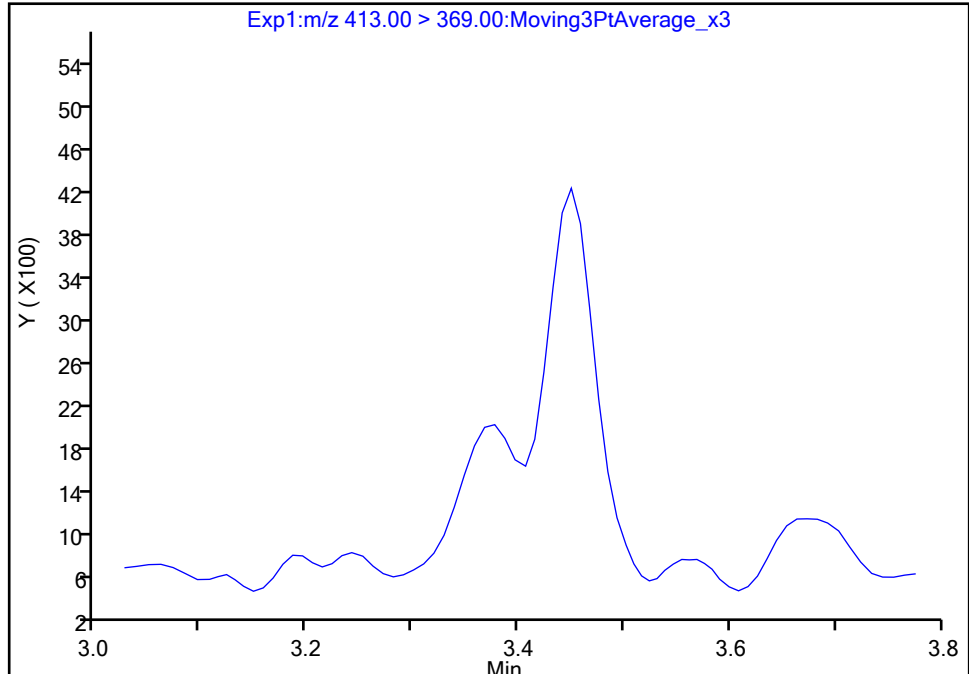
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A25.d				
Injection Date:	27-Oct-2020 20:23:44	Instrument ID:	LC812		
Lims ID:	480-176996-C-6-A	Lab Sample ID:	200-176996-6		
Client ID:	B1219-W06				
Operator ID:	lc812tech	ALS Bottle#:	22	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

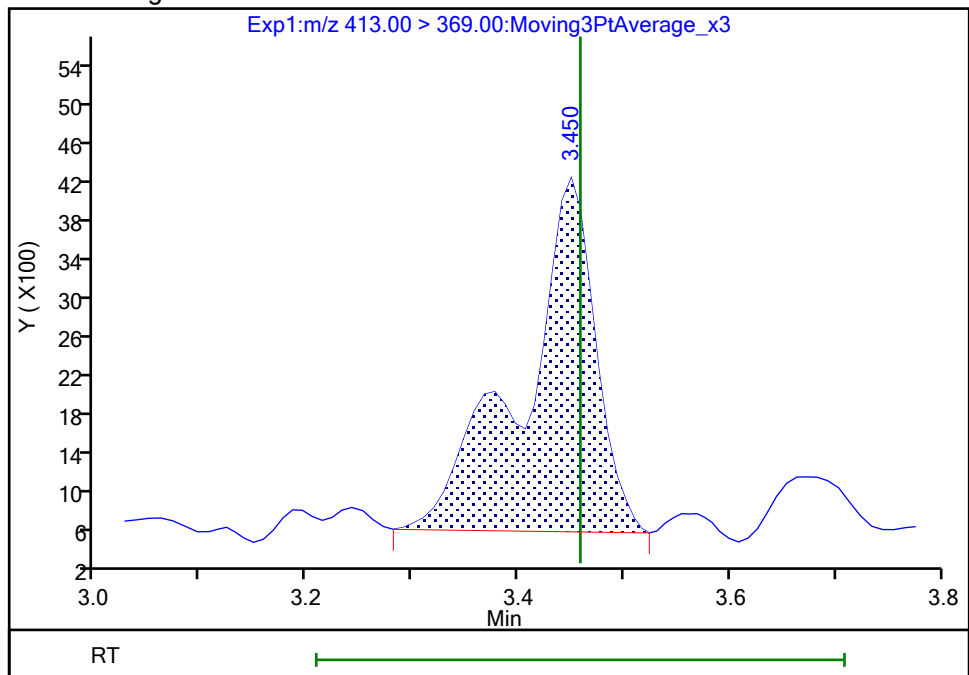
Signal: 1

Not Detected
Expected RT: 3.46

Processing Integration Results



Manual Integration Results



RT: 3.45
Area: 17366
Amount: 0.038185
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:09:43

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

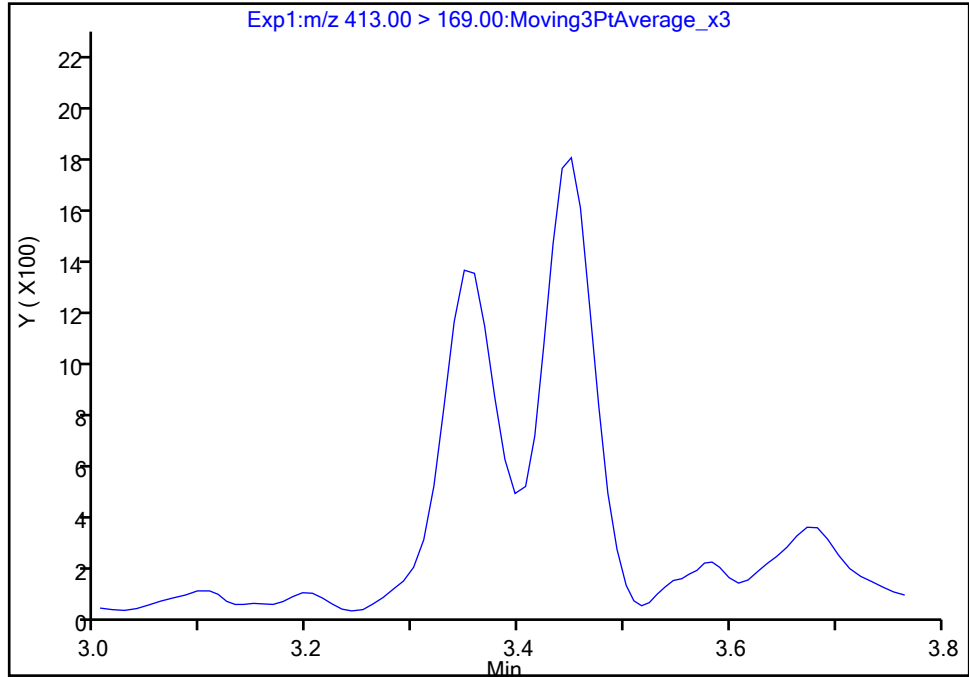
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A25.d				
Injection Date:	27-Oct-2020 20:23:44	Instrument ID:	LC812		
Lims ID:	480-176996-C-6-A	Lab Sample ID:	200-176996-6		
Client ID:	B1219-W06				
Operator ID:	lc812tech	ALS Bottle#:	22	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

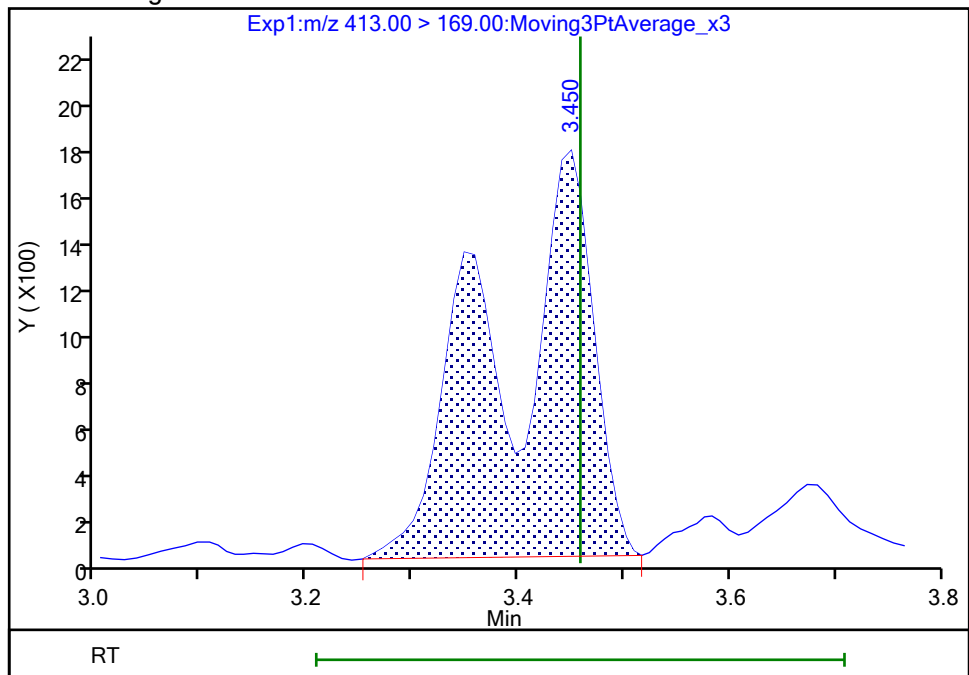
Signal: 2

Not Detected
Expected RT: 3.46

Processing Integration Results



Manual Integration Results

RT: 3.45
Area: 10723
Amount: 0.038185
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:09:49

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

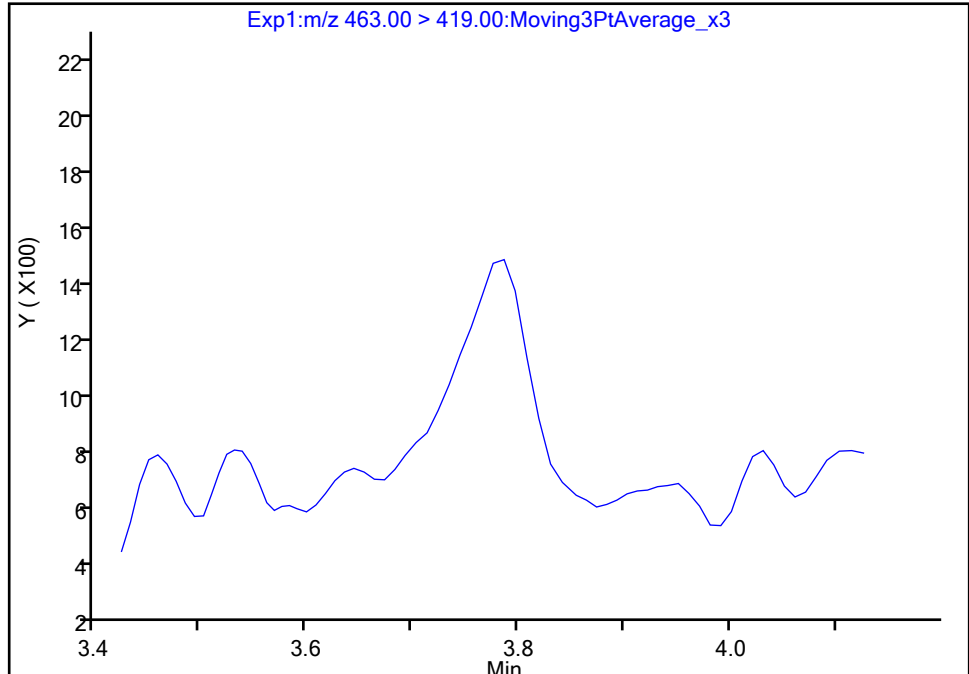
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A25.d				
Injection Date:	27-Oct-2020 20:23:44	Instrument ID:	LC812		
Lims ID:	480-176996-C-6-A	Lab Sample ID:	200-176996-6		
Client ID:	B1219-W06				
Operator ID:	lc812tech	ALS Bottle#:	22	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector:	EXP1		

20 Perfluorononanoic acid, CAS: 375-95-1

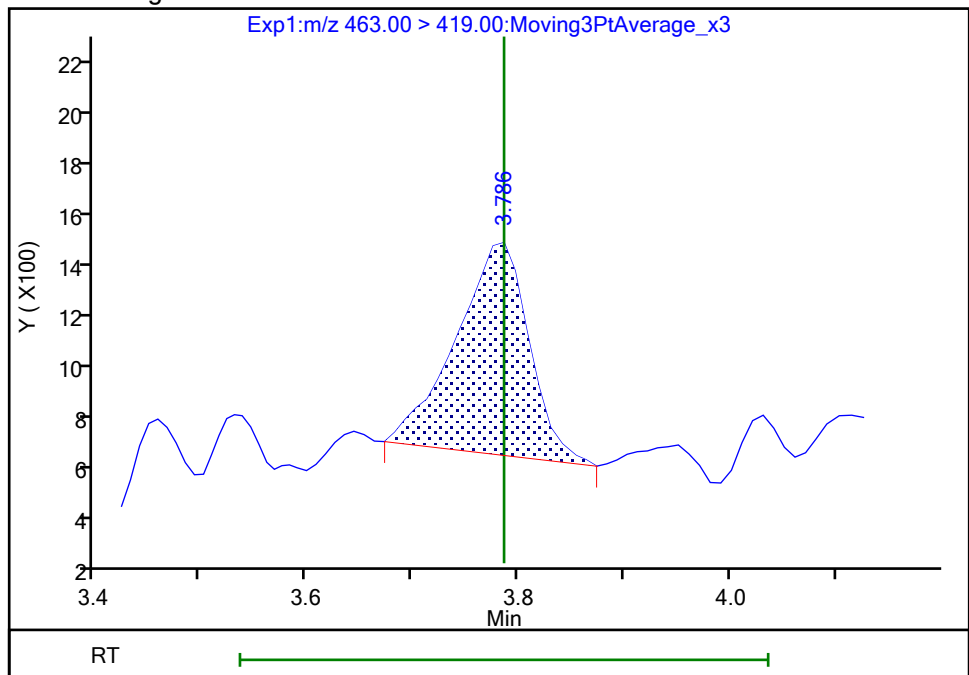
Signal: 1

Not Detected
Expected RT: 3.79

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:10:25

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

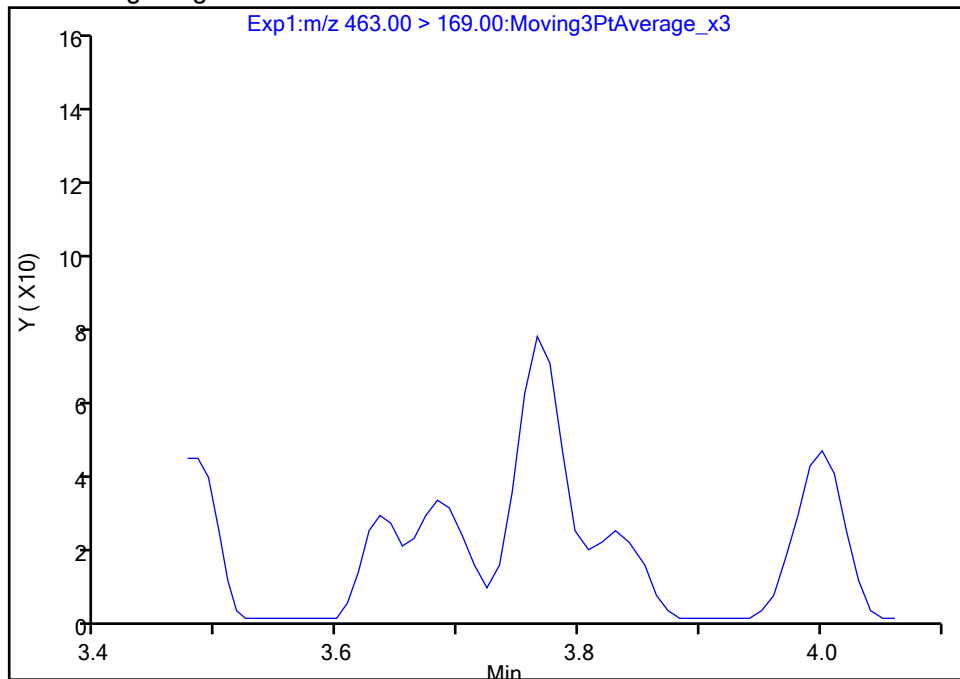
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A25.d
Injection Date: 27-Oct-2020 20:23:44 Instrument ID: LC812
Lims ID: 480-176996-C-6-A Lab Sample ID: 200-176996-6
Client ID: B1219-W06
Operator ID: lc812tech ALS Bottle#: 22 Worklist Smp#: 25
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

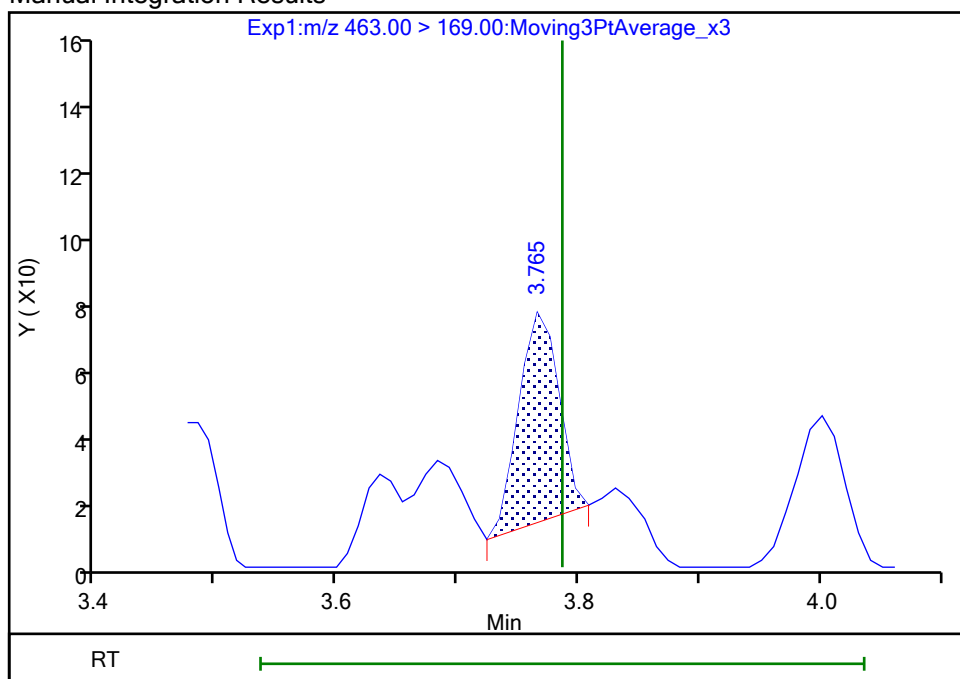
Not Detected
Expected RT: 3.79

Processing Integration Results



Manual Integration Results

RT: 3.77
Area: 139
Amount: 0.011411
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 10:10:28

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

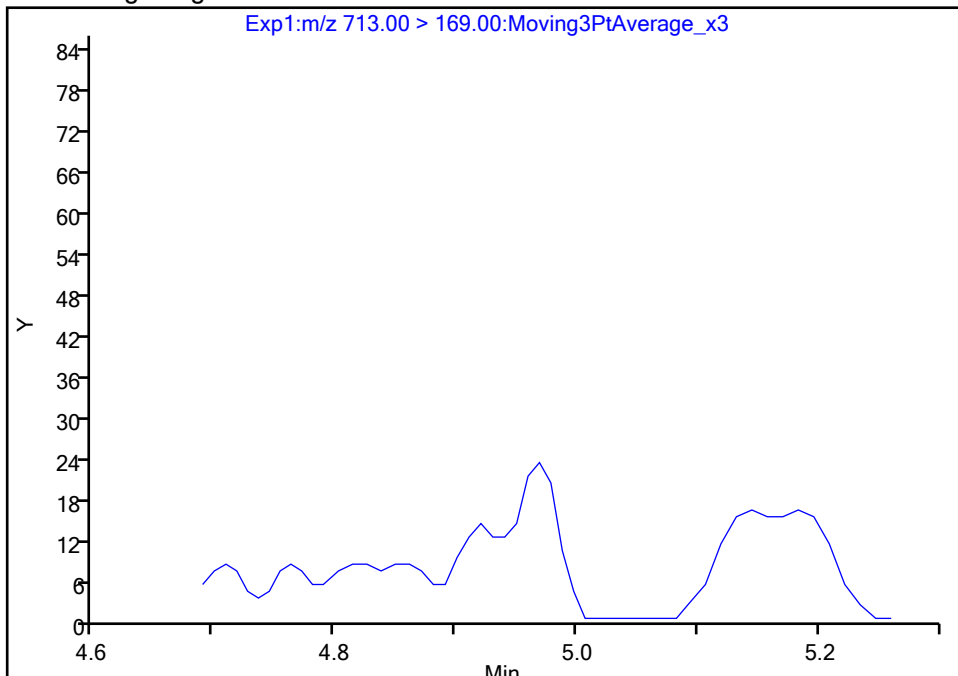
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A25.d
Injection Date: 27-Oct-2020 20:23:44 Instrument ID: LC812
Lims ID: 480-176996-C-6-A Lab Sample ID: 200-176996-6
Client ID: B1219-W06
Operator ID: lc812tech ALS Bottle#: 22 Worklist Smp#: 25
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

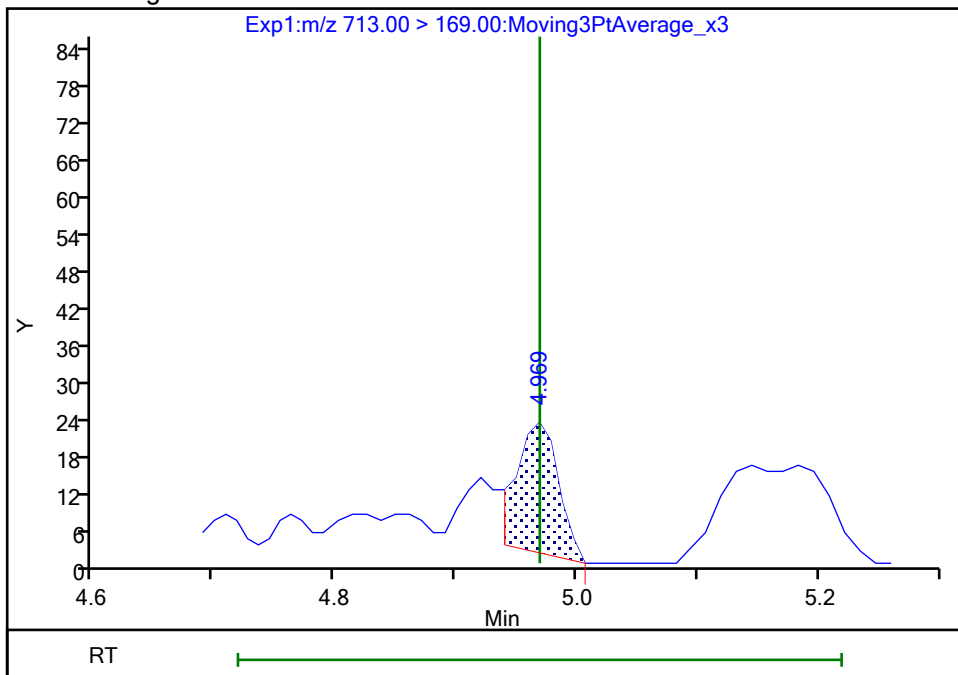
Signal: 1

Not Detected
Expected RT: 4.97

Processing Integration Results



Manual Integration Results



RT: 4.97
Area: 49
Amount: 0.002406
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:11:11

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

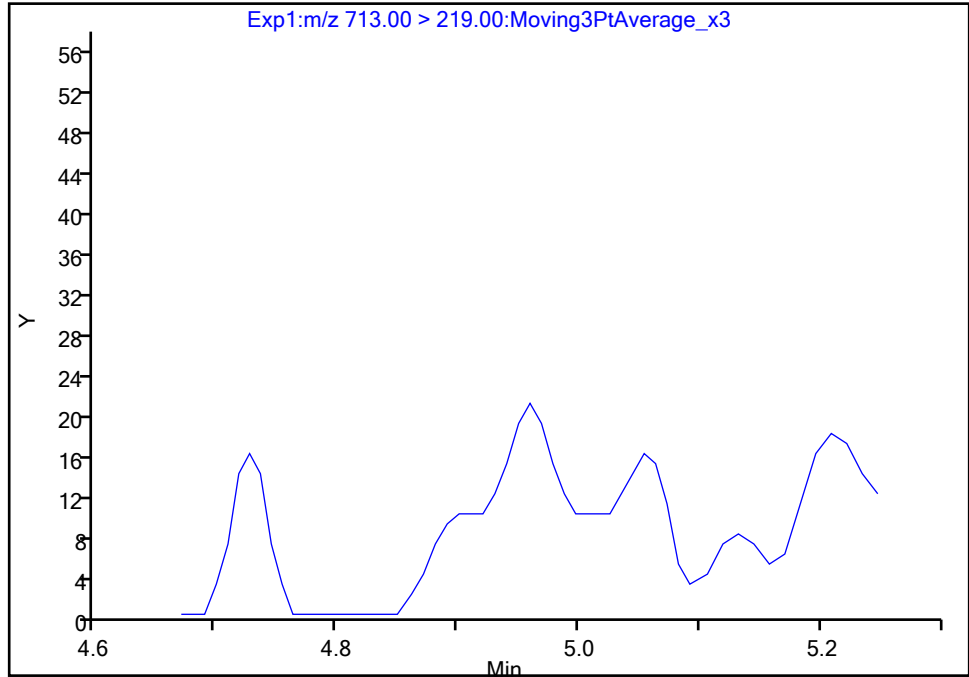
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A25.d
Injection Date: 27-Oct-2020 20:23:44 Instrument ID: LC812
Lims ID: 480-176996-C-6-A Lab Sample ID: 200-176996-6
Client ID: B1219-W06
Operator ID: lc812tech ALS Bottle#: 22 Worklist Smp#: 25
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

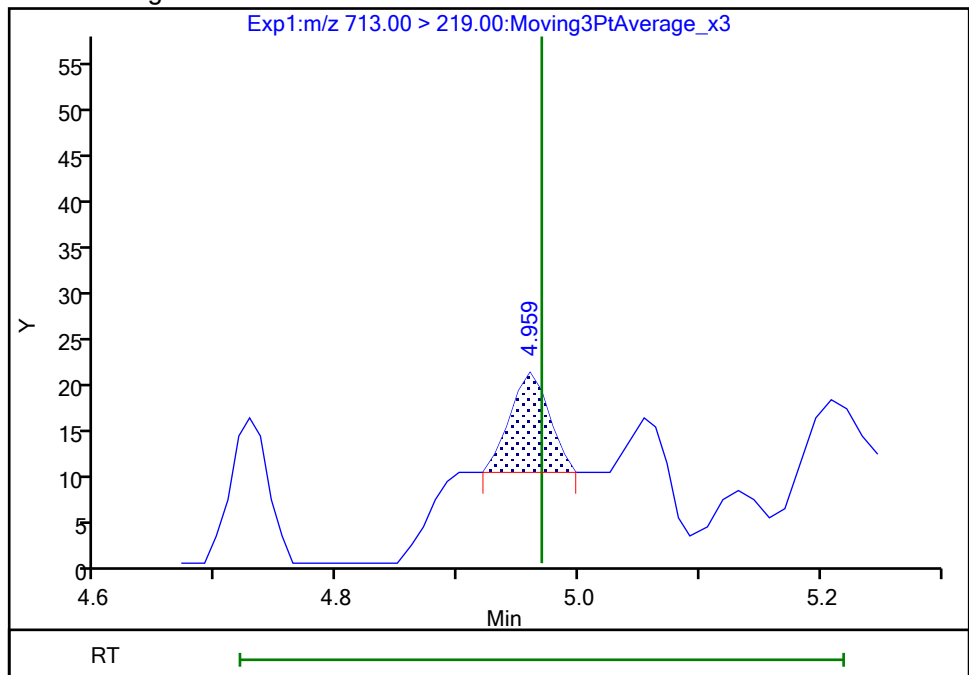
Signal: 2

Not Detected
Expected RT: 4.97

Processing Integration Results



Manual Integration Results



RT: 4.96
Area: 24
Amount: 0.002406
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:11:14

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A25.d

Injection Date: 27-Oct-2020 20:23:44

Instrument ID: LC812

Lims ID: 480-176996-C-6-A

Lab Sample ID: 200-176996-6

Client ID: B1219-W06

Operator ID: lc812tech

ALS Bottle#:

22

Worklist Smp#: 25

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

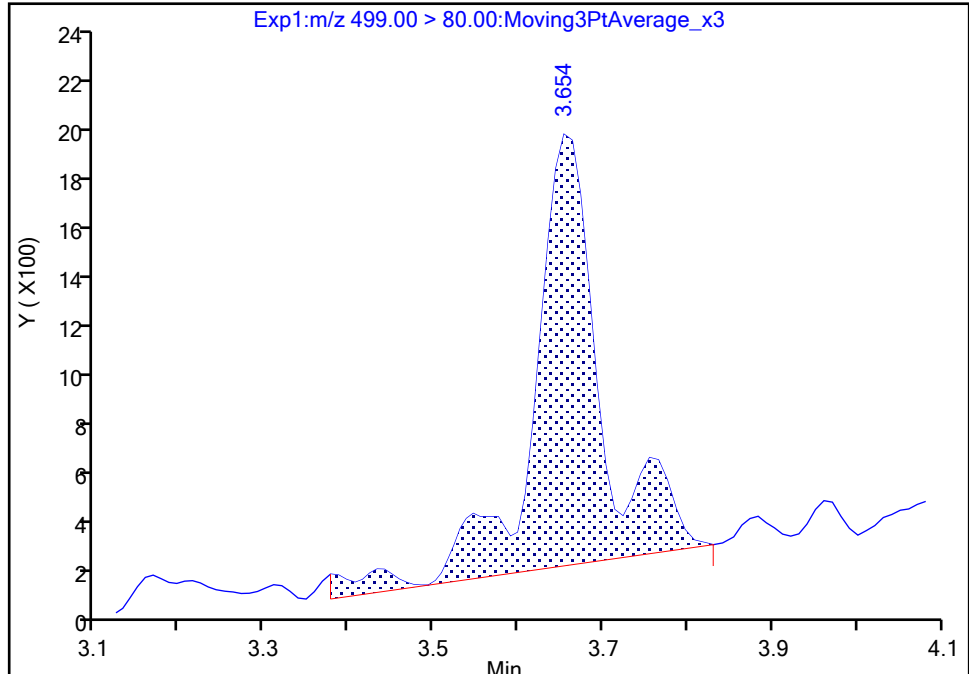
EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

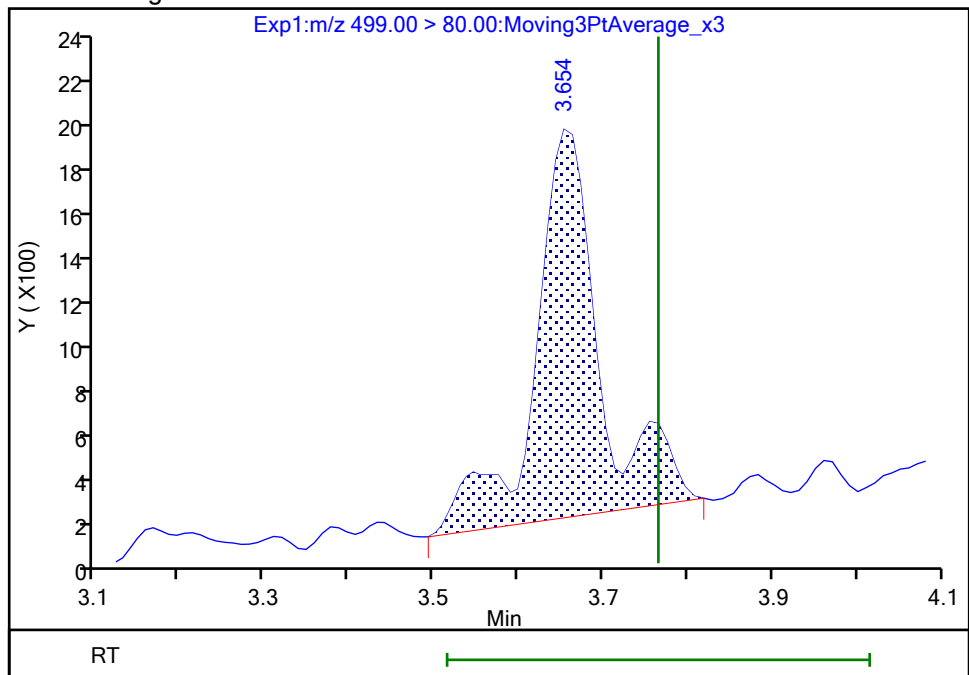
RT: 3.65
Area: 9620
Amount: 0.029578
Amount Units: ng/ml

Processing Integration Results



RT: 3.65
Area: 9087
Amount: 0.027939
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:09:58

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

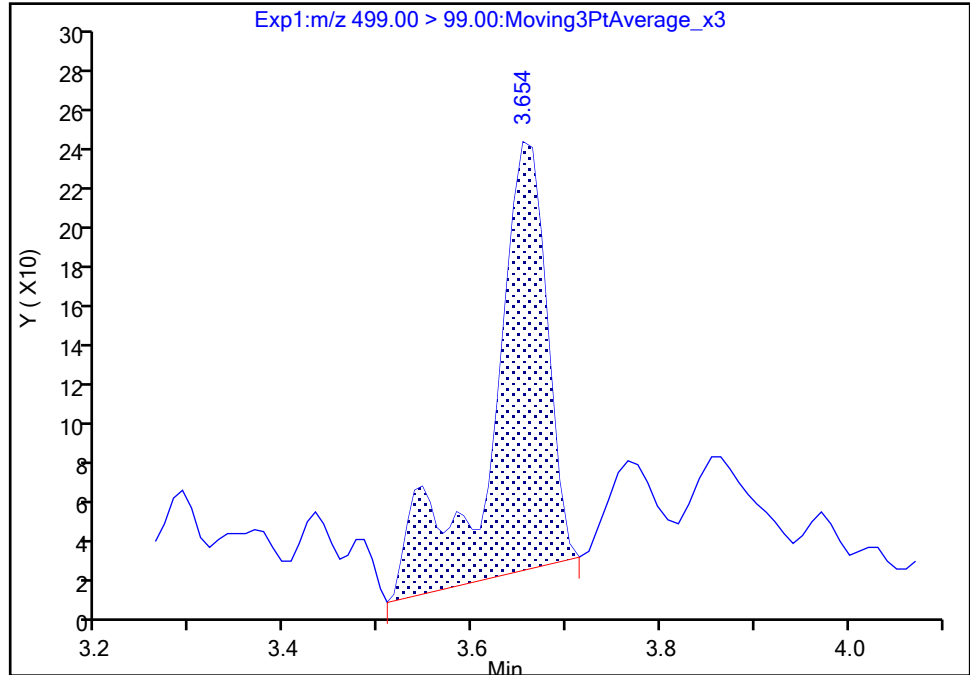
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A25.d
Injection Date: 27-Oct-2020 20:23:44 Instrument ID: LC812
Lims ID: 480-176996-C-6-A Lab Sample ID: 200-176996-6
Client ID: B1219-W06
Operator ID: lc812tech ALS Bottle#: 22 Worklist Smp#: 25
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

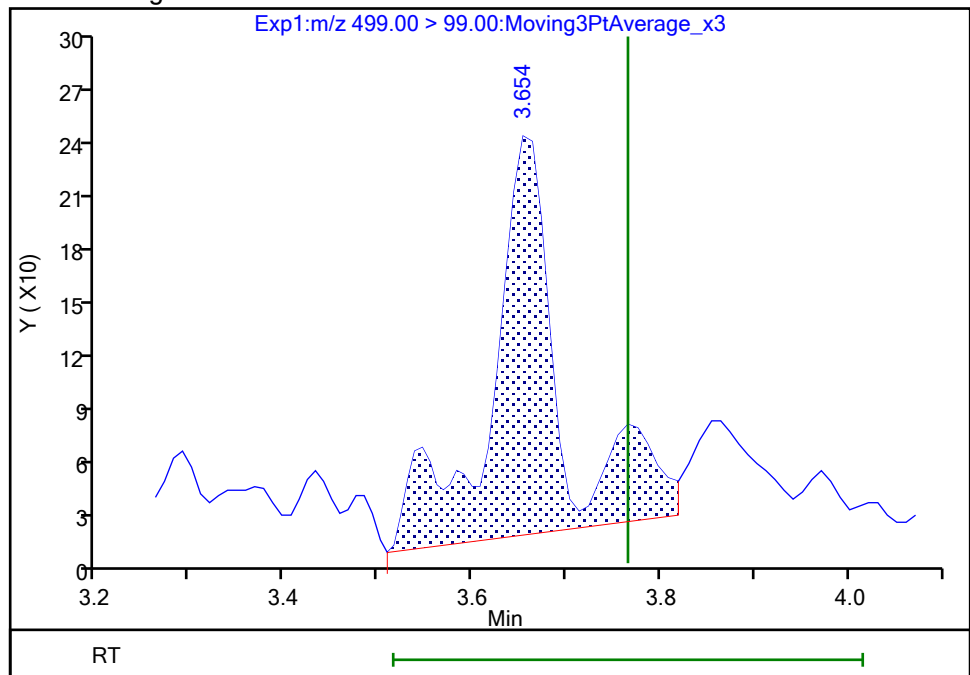
RT: 3.65
Area: 890
Amount: 0.029578
Amount Units: ng/ml

Processing Integration Results



RT: 3.65
Area: 1157
Amount: 0.027939
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:10:08

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

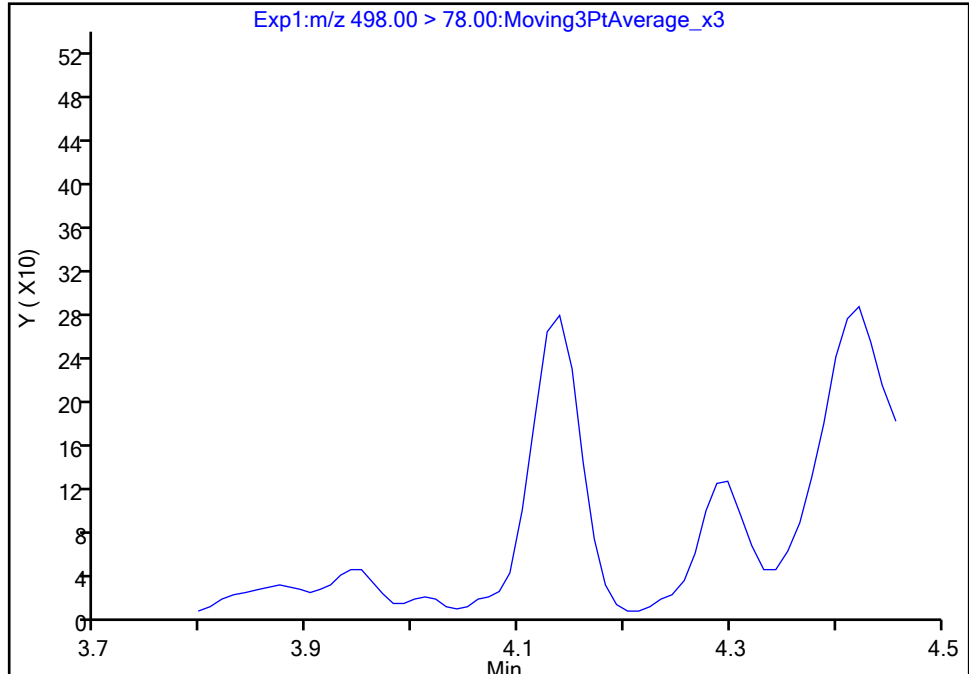
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A25.d
Injection Date: 27-Oct-2020 20:23:44 Instrument ID: LC812
Lims ID: 480-176996-C-6-A Lab Sample ID: 200-176996-6
Client ID: B1219-W06
Operator ID: lc812tech ALS Bottle#: 22 Worklist Smp#: 25
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

22 Perfluorooctanesulfonamide, CAS: 754-91-6

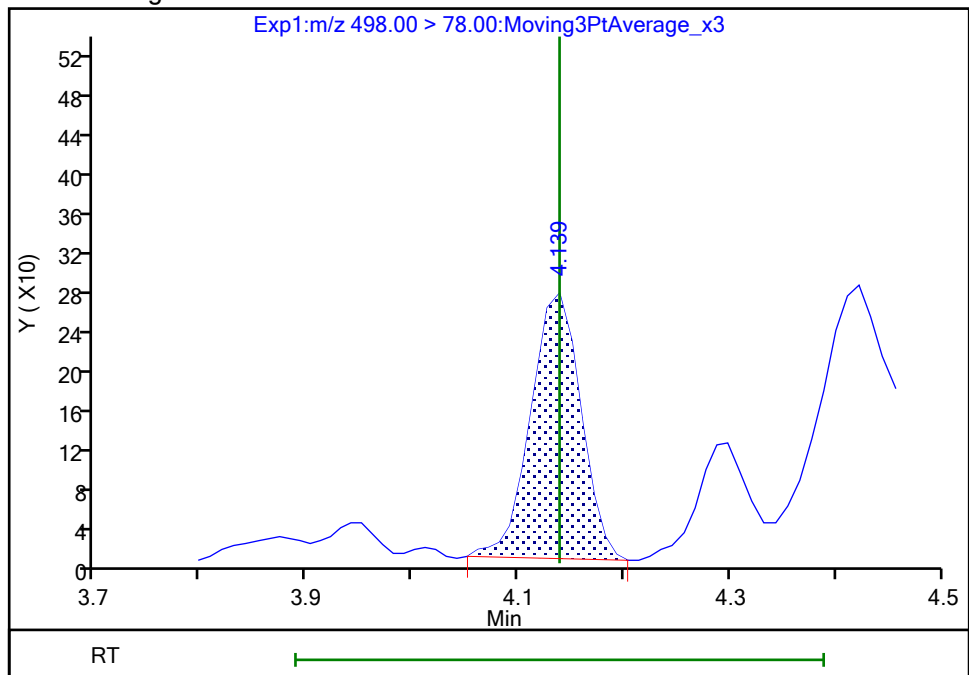
Signal: 1

Not Detected
Expected RT: 4.14

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:10:44

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

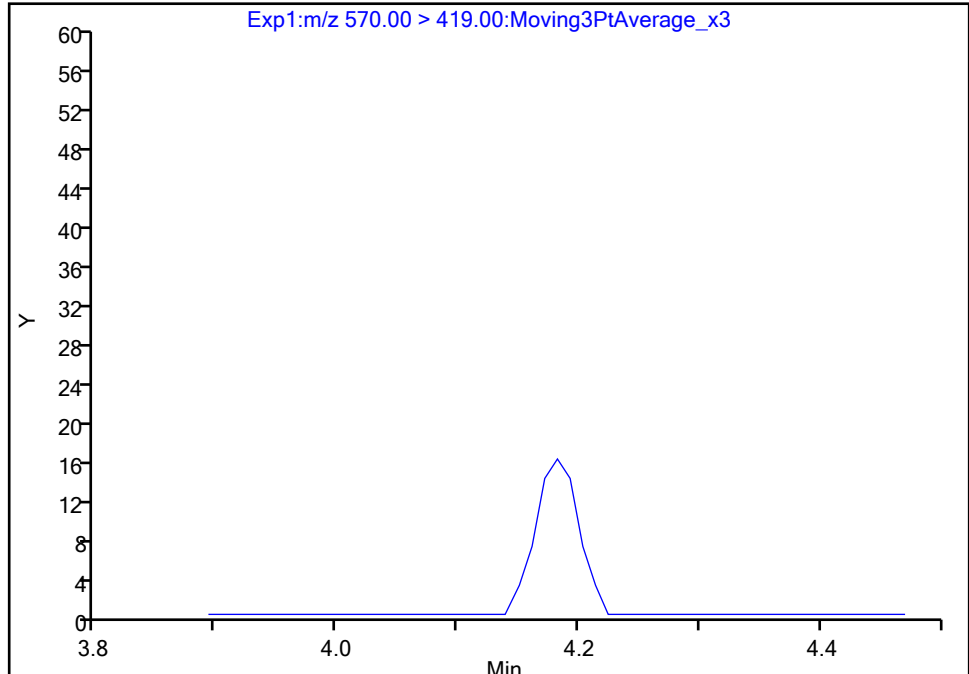
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A25.d				
Injection Date:	27-Oct-2020 20:23:44	Instrument ID:	LC812		
Lims ID:	480-176996-C-6-A	Lab Sample ID:	200-176996-6		
Client ID:	B1219-W06				
Operator ID:	lc812tech	ALS Bottle#:	22	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

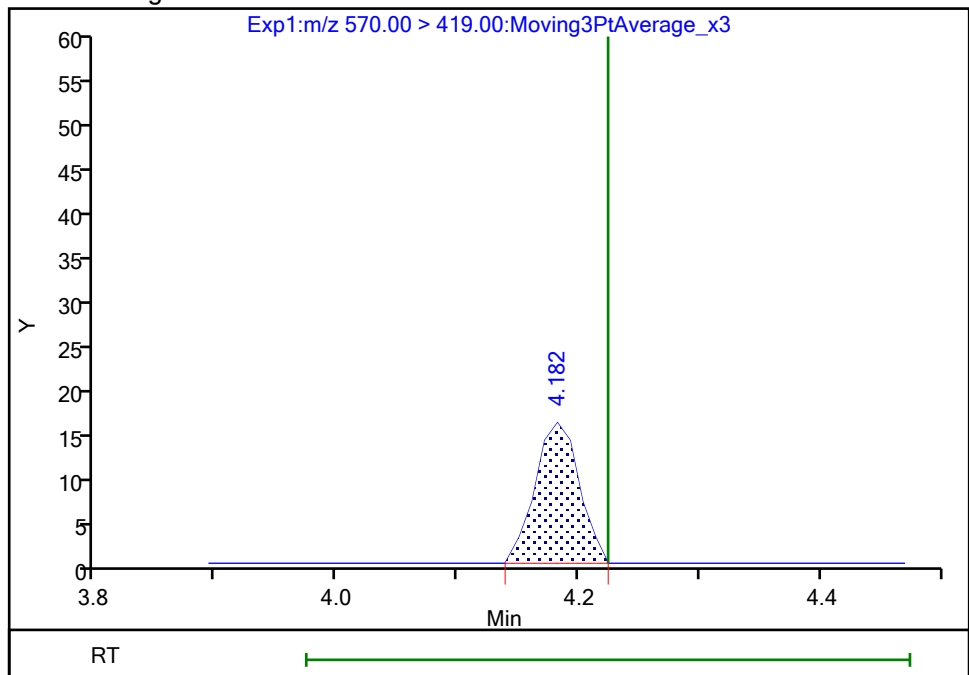
Signal: 1

Not Detected
Expected RT: 4.22

Processing Integration Results

RT: 4.18
Area: 40
Amount: 0.003670
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:10:52

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

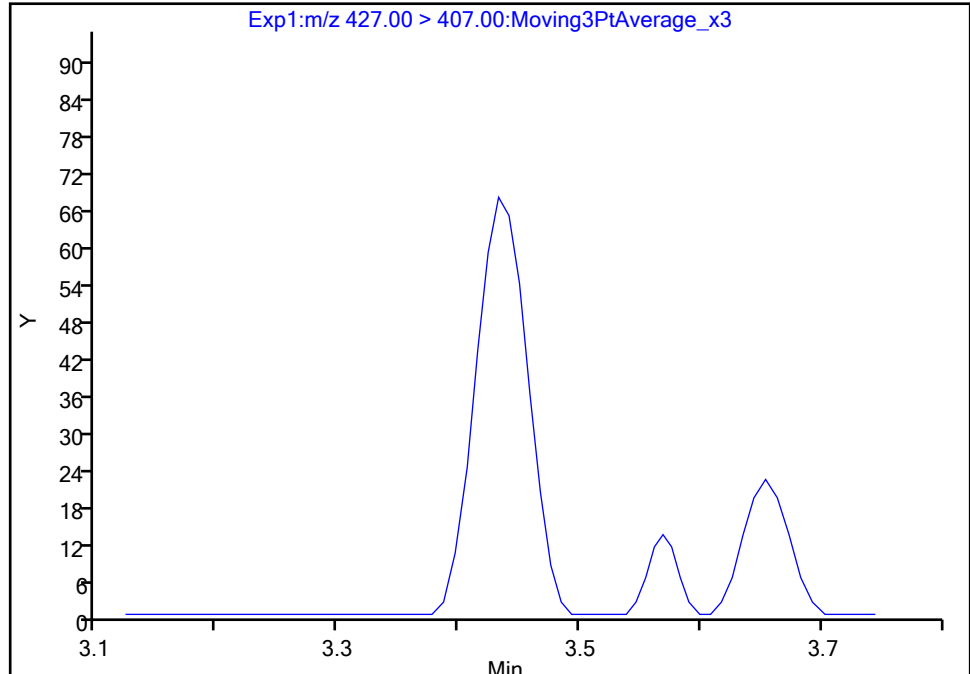
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A25.d
Injection Date: 27-Oct-2020 20:23:44 Instrument ID: LC812
Lims ID: 480-176996-C-6-A Lab Sample ID: 200-176996-6
Client ID: B1219-W06
Operator ID: lc812tech ALS Bottle#: 22 Worklist Smp#: 25
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

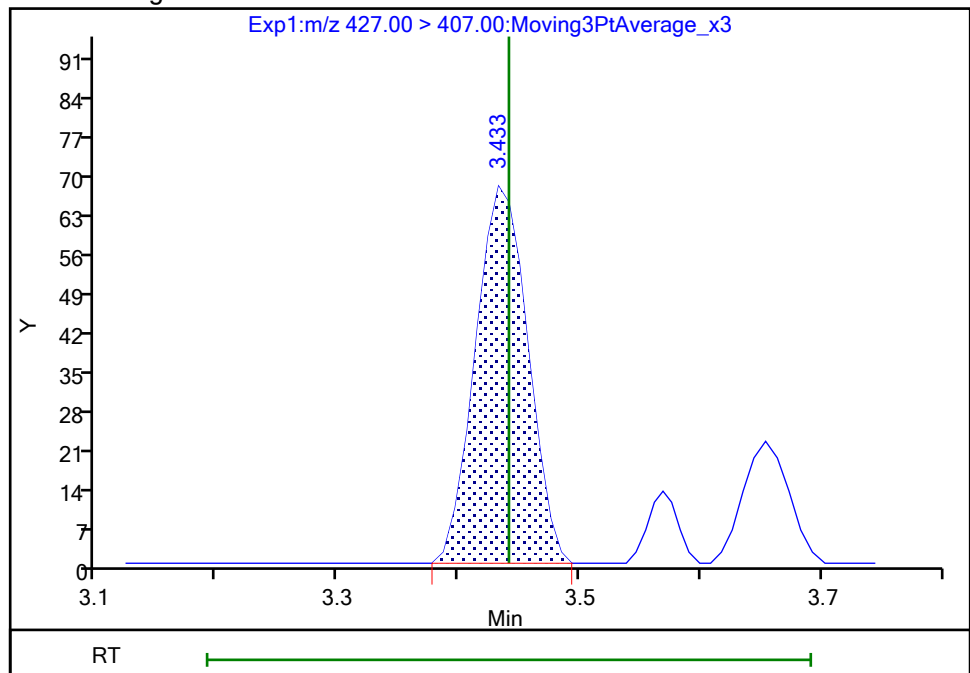
Signal: 1

Not Detected
Expected RT: 3.44

Processing Integration Results



Manual Integration Results



RT: 3.43
Area: 204
Amount: 0.004154
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:09:37

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

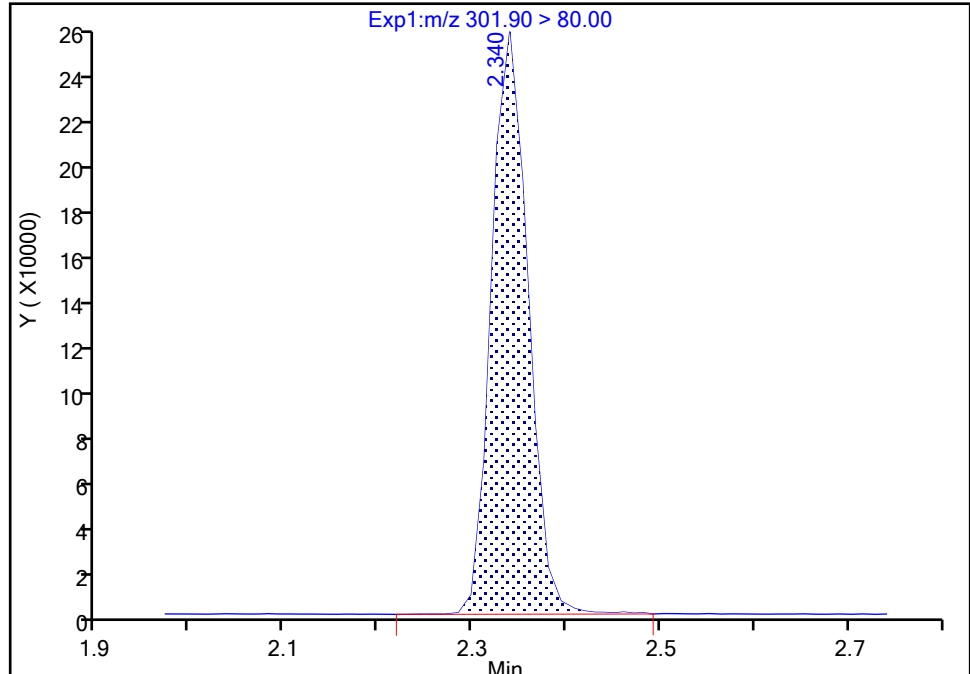
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A25.d				
Injection Date:	27-Oct-2020 20:23:44	Instrument ID:	LC812		
Lims ID:	480-176996-C-6-A	Lab Sample ID:	200-176996-6		
Client ID:	B1219-W06				
Operator ID:	lc812tech	ALS Bottle#:	22	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

D 47 13C3 PFBS, CAS: STL02337

Signal: 1

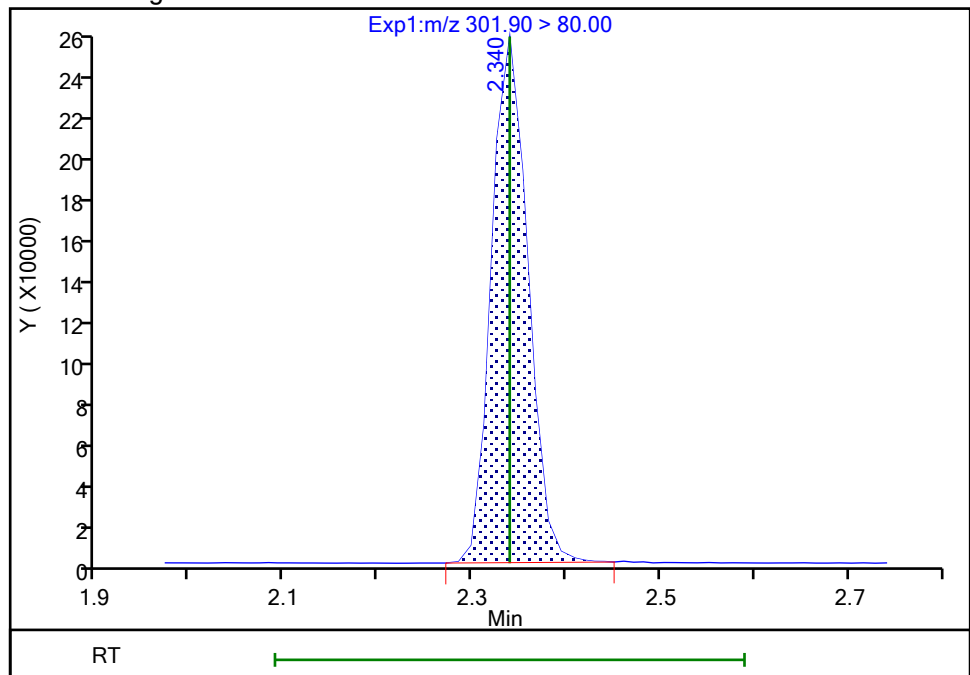
RT: 2.34
Area: 677978
Amount: 1.127073
Amount Units: ng/ml

Processing Integration Results



RT: 2.34
Area: 673911
Amount: 1.120312
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:07:50

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins TestAmerica, Burlington</u>	Job No.: <u>480-176996-1</u>
SDG No.: _____	
Client Sample ID: <u>B-54 B1266-W12</u>	Lab Sample ID: <u>480-176996-7</u>
Matrix: <u>Water</u>	Lab File ID: <u>PA201027A26.d</u>
Analysis Method: <u>537 (modified)</u>	Date Collected: <u>10/21/2020 15:10</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/27/2020 09:15</u>
Sample wt/vol: <u>286.5 (mL)</u>	Date Analyzed: <u>10/27/2020 20:32</u>
Con. Extract Vol.: <u>10 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>20 (uL)</u>	GC Column: <u>C-18</u> ID: <u>4.6 (mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>160481</u>	Units: <u>ng/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	4.9		4.4	0.99
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		1.7	0.94
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		1.7	0.72
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.54	J	1.7	0.40
335-67-1	Perfluorooctanoic acid (PFOA)	1.7		1.7	0.86
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.7	0.51
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.7	0.40
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.64
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.7	0.40
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.38
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.51
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.0	J	1.7	0.55
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1.1	J	1.7	0.58
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.34
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	4.5		1.7	0.76
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.42
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.50
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4	0.69
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4	0.81
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.4	0.63
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.58

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Client Sample ID: B-54 B1266-W12 Lab Sample ID: 480-176996-7
 Matrix: Water Lab File ID: PA201027A26.d
 Analysis Method: 537 (modified) Date Collected: 10/21/2020 15:10
 Extraction Method: 3535 Date Extracted: 10/27/2020 09:15
 Sample wt/vol: 286.5 (mL) Date Analyzed: 10/27/2020 20:32
 Con. Extract Vol.: 10 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: C-18 ID: 4.6 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 160481 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	99		50-150
STL01892	13C4 PFHpA	107		50-150
STL00990	13C4 PFOA	93		50-150
STL00991	13C4 PFOS	77		50-150
STL00995	13C5 PFNA	82		50-150
STL00992	13C4 PFBA	97		25-150
STL00993	13C2 PFHxA	104		50-150
STL00996	13C2 PFDA	58		50-150
STL00997	13C2 PFUnA	55		50-150
STL00998	13C2 PFDoA	43	*5	50-150
STL01056	13C8 FOSA	71		25-150
STL01893	13C5 PFPeA	101		25-150
STL02116	13C2 PFTeDA	45	*5	50-150
STL02118	d3-NMeFOSAA	55		50-150
STL02117	d5-NEtFOSAA	52		50-150
STL02279	M2-6:2 FTS	101		25-150
STL02280	M2-8:2 FTS	66		25-150
STL02337	13C3 PFBS	98		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d
 Lims ID: 480-176996-C-7-A
 Client ID: B-54/B1266-W12
 Sample Type: Client
 Inject. Date: 27-Oct-2020 20:32:00 ALS Bottle#: 23 Worklist Smp#: 26
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: 480-176996-C-7-A
 Misc. Info.: 200-0043412-026 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Method: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 28-Oct-2020 13:19:45 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1652

First Level Reviewer: khanphomeea

Date: 28-Oct-2020 10:15:18

Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.972	1.981	-0.009	0.573	840591	1.22		97.3	10185	
2 Perfluorobutanoic acid										M
212.90 > 169.00	1.981	1.990	-0.009	1.005	88219	0.1403			22.2	M
D 3 13C5 PFPeA										
267.90 > 223.00	2.312	2.326	-0.014	0.672	623643	1.26		101	2009	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.312	2.326	-0.014	1.000	10825	0.0205			0.4	M
D 47 13C3 PFBS										M
301.90 > 80.00	2.326	2.339	-0.013	0.676	685417	1.14		97.7	80819	M
5 Perfluorobutanesulfonic acid										M
298.90 > 80.00	2.340	2.353	-0.013	1.006	17665	0.0301	Target=2.07		8.7	M
298.90 > 99.00	2.340	2.353	-0.013	1.006	8975		1.97(1.04-3.11)		5.0	
D 7 13C2 PFHxA										
315.00 > 270.00	2.691	2.703	-0.012	0.782	665991	1.31		104	2133	
6 Perfluorohexanoic acid										M
313.00 > 269.00	2.691	2.703	-0.012	1.000	8261	0.0154	Target=12.44		1.6	M
313.00 > 119.00	2.691	2.703	-0.012	1.000	843		9.80(6.22-18.66)		1.8	M
D 11 18O2 PFHxS										
403.00 > 84.00	3.073	3.084	-0.011	0.893	507318	1.17		99.1	2316	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.073	3.084	-0.011	1.000	14664	0.0309	Target=4.60		21.2	M
399.00 > 99.00	3.073	3.084	-0.011	1.000	3426		4.28(2.30-6.91)		6.0	M
D 9 13C4 PFHpA										
367.00 > 322.00	3.073	3.084	-0.011	0.893	620197	1.34		107	5790	
10 Perfluoroheptanoic acid										M
363.00 > 319.00	3.073	3.084	-0.011	1.000	7757	0.0156	Target=3.34		2.0	
363.00 > 169.00	3.073	3.084	-0.011	1.000	2350		3.30(1.67-5.01)		9.1	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
16 Perfluoroheptanesulfonic acid										RM
449.00 > 80.00	3.424	3.441	-0.017	0.912	1070	0.003400	Target=7.08	3.2		RM
449.00 > 99.00	3.424	3.441	-0.017	0.912	317		3.38(3.54-10.63)	2.8		M
D 12 M2-6:2 FTS										
429.00 > 81.00	3.433	3.441	-0.008	0.997	69210	1.20		101	253	
13 1H,1H,2H,2H-perfluorooctanesulfo										M
427.00 > 407.00	3.433	3.441	-0.008	1.000	370	0.007955		10.7		M
D 14 13C4 PFOA										
417.00 > 372.00	3.441	3.450	-0.009	1.000	554841	1.17		93.5	7020	
* 62 13C2 PFOA										
415.00 > 370.00	3.441	3.450	-0.009		603015	1.25		3705		
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.441	3.458	-0.017	1.000	22050	0.0481	Target=2.29	9.2		
413.00 > 169.00	3.441	3.458	-0.017	1.000	10435		2.11(1.14-3.43)	38.5		M
D 18 13C4 PFOS										
503.00 > 80.00	3.755	3.765	-0.010	1.091	324637	0.9167		76.7	1000	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.654	3.765	-0.111	0.973	38282	0.1297	Target=7.10	24.0		M
499.00 > 99.00	3.755	3.765	-0.010	1.000	3687		10.38(3.55-10.64)	18.4		M
D 19 13C5 PFNA										
468.00 > 423.00	3.776	3.786	-0.010	1.097	410403	1.03		82.0	5045	
D 23 13C2 PFDA										
515.00 > 470.00	4.072	4.082	-0.010	1.183	279897	0.7293		58.3	4056	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.082	4.092	-0.010	1.186	53541	0.7857		65.6	134	
25 1H,1H,2H,2H-perfluorodecanesulfo										M
527.00 > 507.00	4.062	4.092	-0.030	0.995	74	0.004181		3.6		M
D 21 13C8 FOSA										
506.00 > 78.00	4.139	4.139	0.0	1.203	548138	0.8863		70.9	2434	
22 Perfluorooctanesulfonamide										M
498.00 > 78.00	4.139	4.139	0.0	1.000	1070	0.002610		5.6		M
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.214	4.214	0.0	1.224	14906	0.6822		54.6	341	
28 N-methylperfluorooctanesulfonami										M
570.00 > 419.00	4.203	4.224	-0.021	0.998	40	0.003554		0.8		M
D 30 13C2 PFUnA										
565.00 > 520.00	4.332	4.343	-0.011	1.259	200155	0.6908		55.3	2832	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.344	4.343	0.001	1.262	15215	0.6477		51.8	371	
D 36 13C2 PFDaA										
615.00 > 570.00	4.561	4.561	0.0	1.325	165900	0.5418		43.3	2894	
37 Perfluorododecanoic acid										M
613.00 > 569.00	4.561	4.561	0.0	1.000	785	0.006065	Target=5.16	1.2		M
613.00 > 169.00	4.535	4.561	-0.026	0.994	121		6.49(2.58-7.75)	2.7		M
D 43 13C2 PFTeDA										
715.00 > 670.00	4.959	4.969	-0.010	1.441	121561	0.5573		44.6	2425	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
42 Perfluorotetradecanoic acid										RM
713.00 > 169.00	4.959	4.969	-0.010	1.000	113	0.005073	Target=1.06		3.4	RM
713.00 > 219.00	4.959	4.969	-0.010	1.000	70		1.61(0.53-1.59)		3.8	M

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d

Injection Date: 27-Oct-2020 20:32:00

Instrument ID: LC812

Lims ID: 480-176996-C-7-A

Lab Sample ID: 200-176996-7

Client ID: B-54/B1266-W12

Operator ID: lc812tech

ALS Bottle#: 23

Worklist Smp#: 26

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

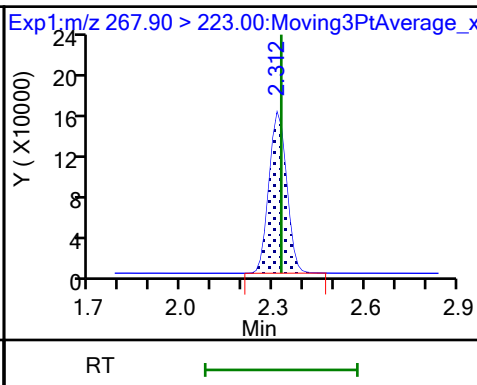
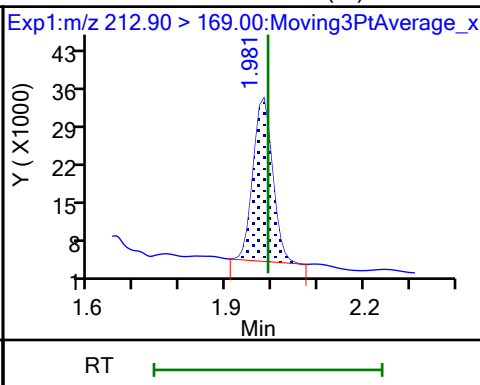
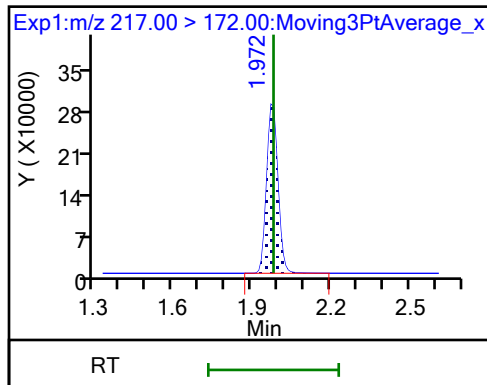
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid (M)

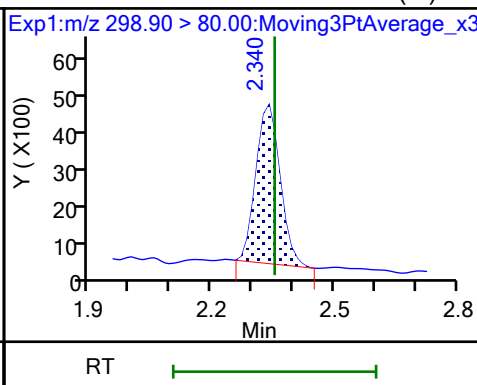
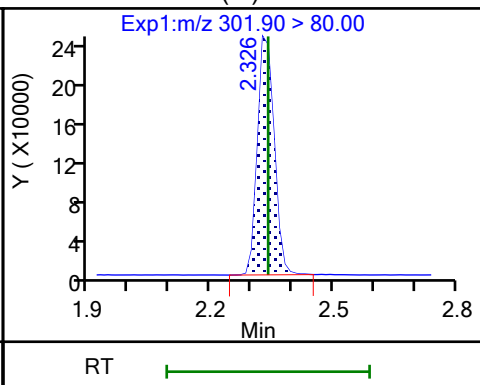
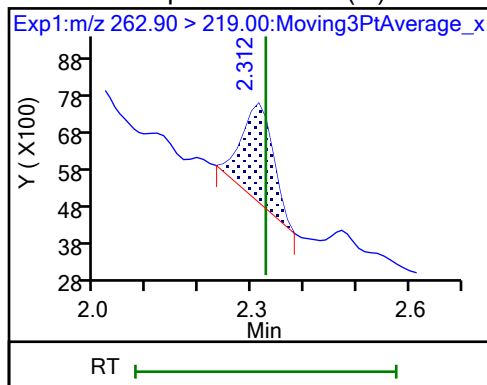
D 3 13C5 PFPeA



4 Perfluoropentanoic acid (M)

D 47 13C3 PFBS (M)

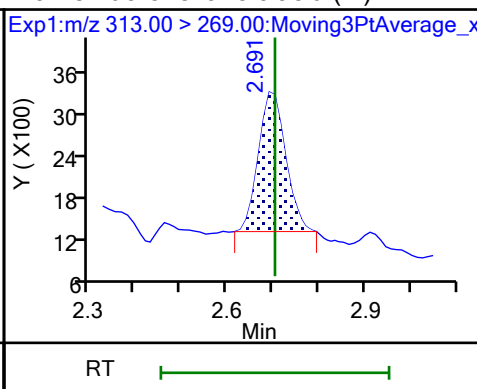
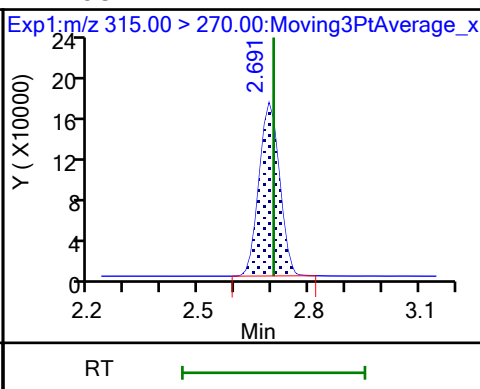
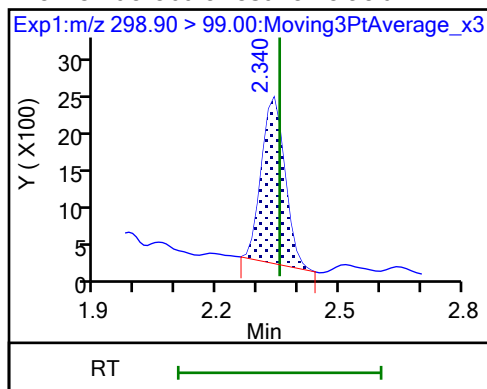
5 Perfluorobutanesulfonic acid (M)



5 Perfluorobutanesulfonic acid

D 7 13C2 PFHxA

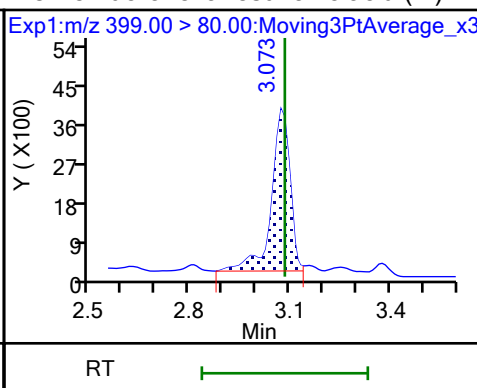
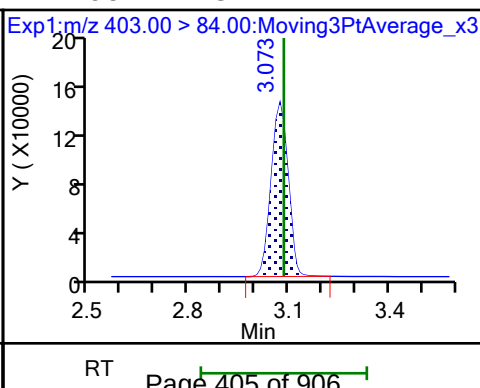
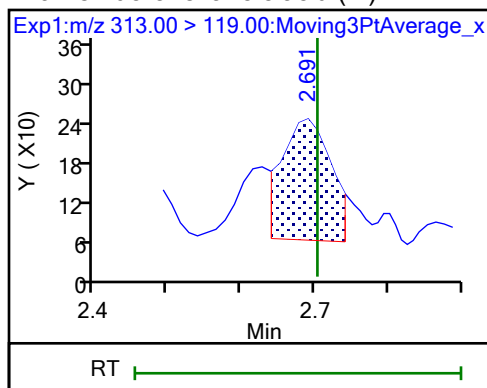
6 Perfluorohexanoic acid (M)



6 Perfluorohexanoic acid (M)

D 11 18O2 PFHxS

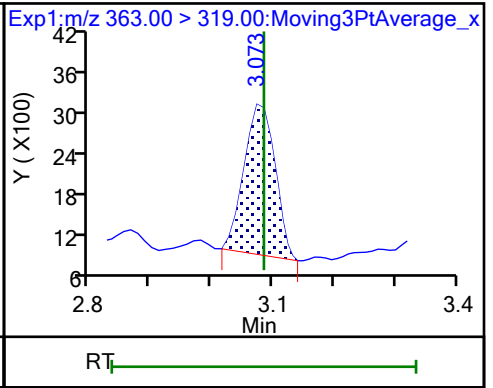
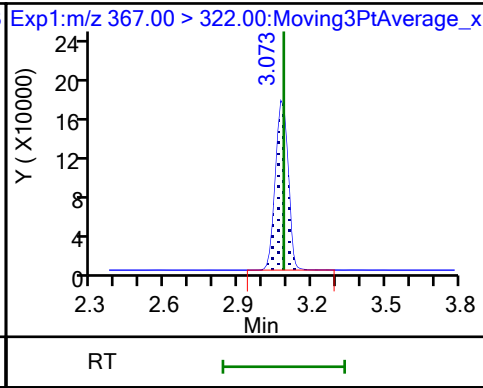
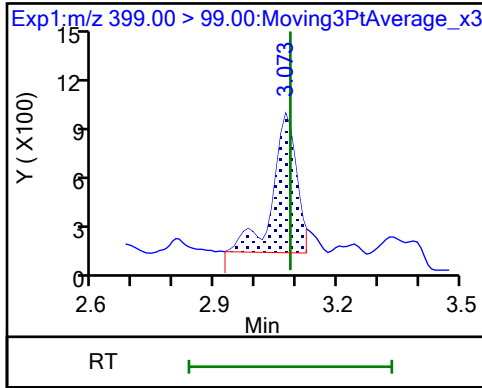
8 Perfluorohexanesulfonic acid (M)



8 Perfluorohexanesulfonic acid (M)

D 9 13C4 PFHpA

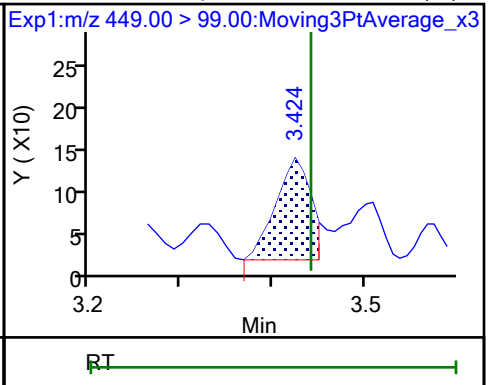
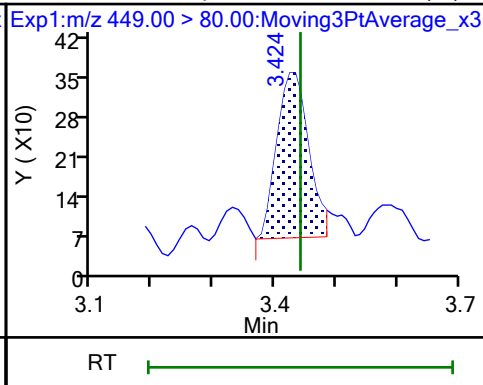
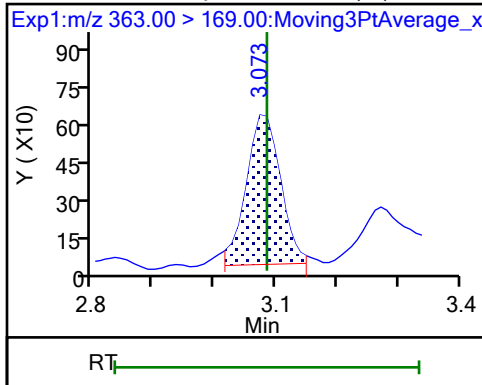
10 Perfluoroheptanoic acid



10 Perfluoroheptanoic acid (M)

16 Perfluoroheptanesulfonic acid (M)

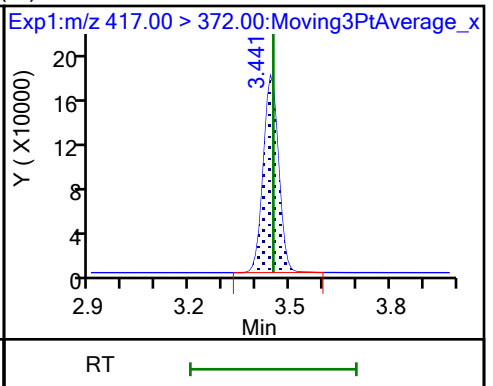
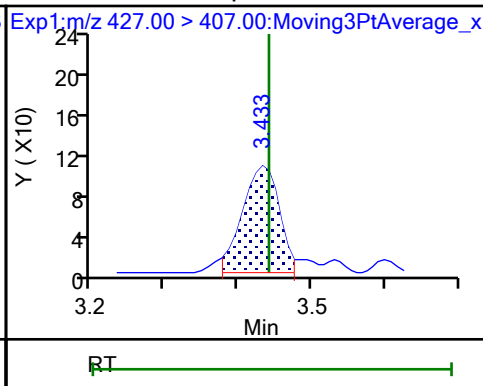
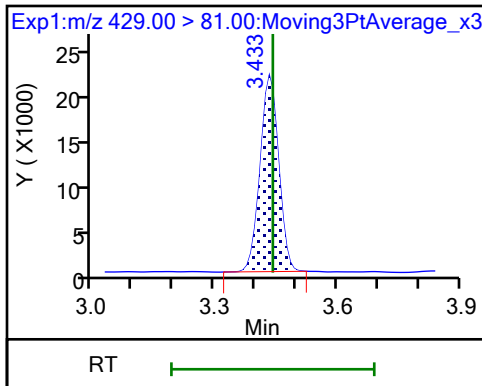
16 Perfluoroheptanesulfonic acid (M)



D 12 M2-6:2 FTS

13 1H,1H,2H,2H-perfluorooctanesulfo (M)

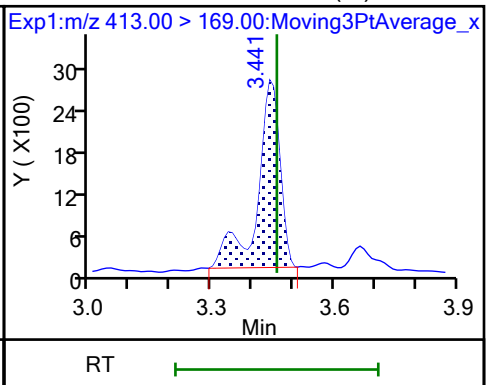
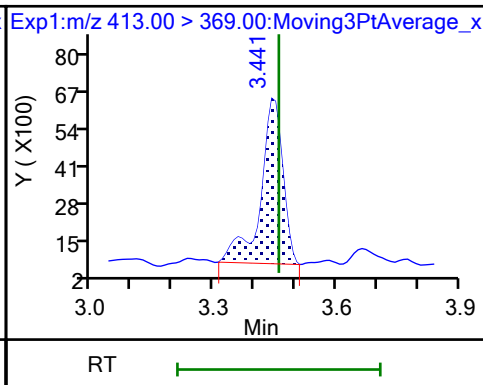
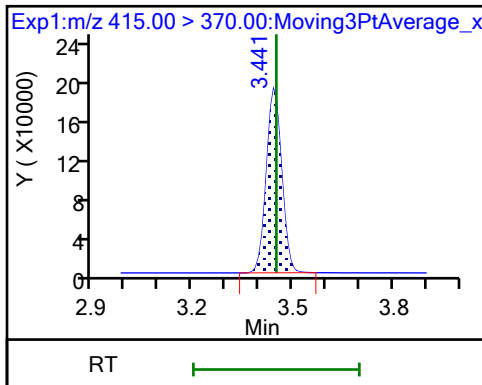
14 13C4 PFOA



* 62 13C2 PFOA

15 Perfluorooctanoic acid

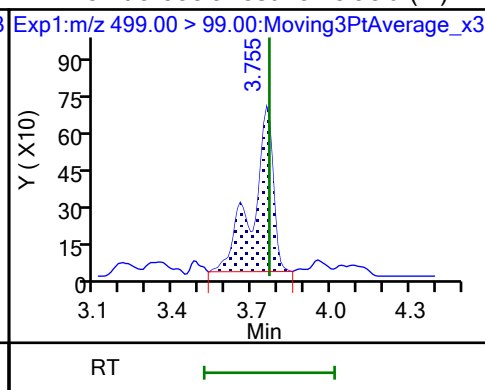
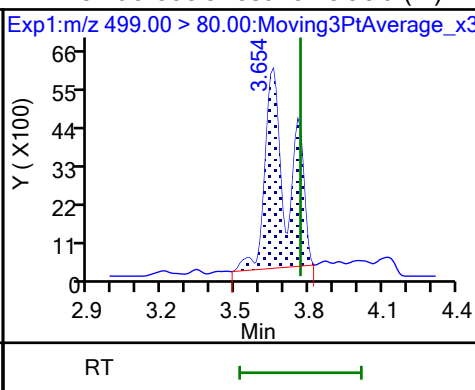
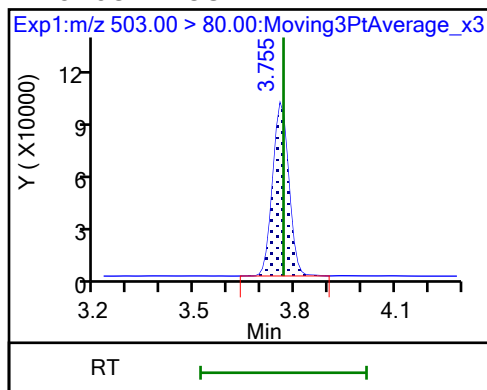
15 Perfluorooctanoic acid (M)



D 18 13C4 PFOS

17 Perfluorooctanesulfonic acid (M)

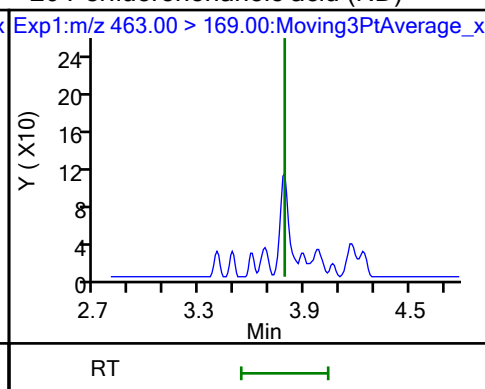
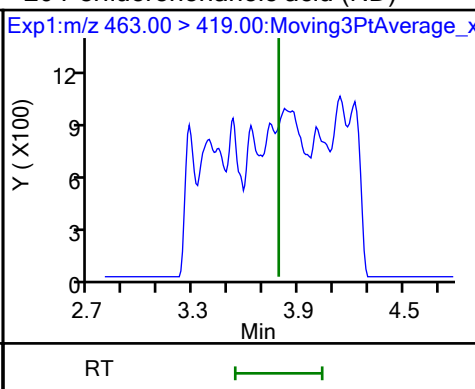
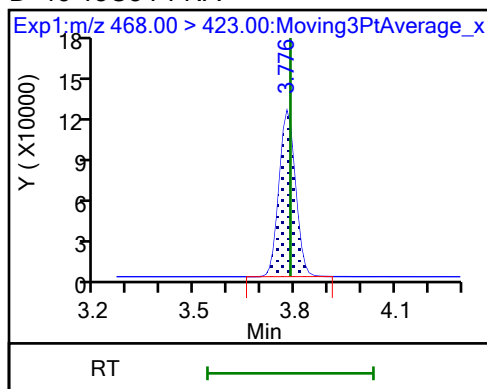
17 Perfluorooctanesulfonic acid (M)



D 19 13C5 PFNA

20 Perfluorononanoic acid (ND)

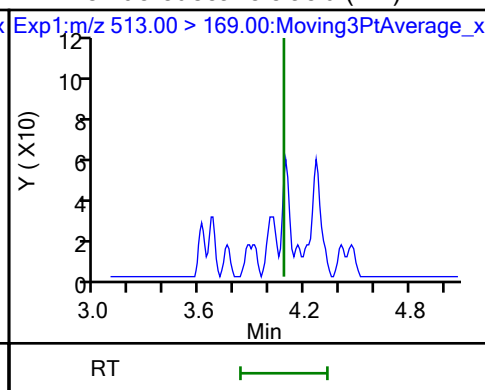
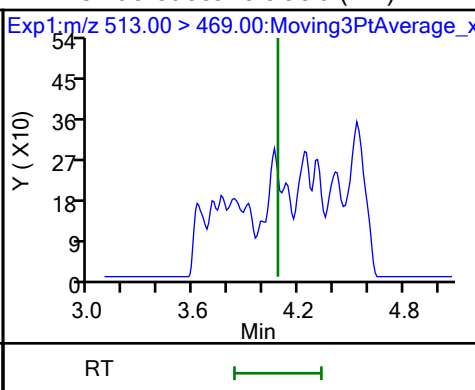
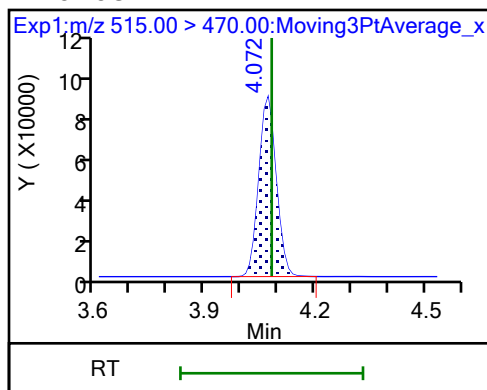
20 Perfluorononanoic acid (ND)



D 23 13C2 PFDA

24 Perfluorodecanoic acid (ND)

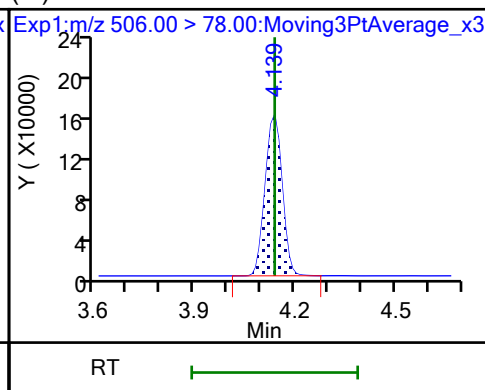
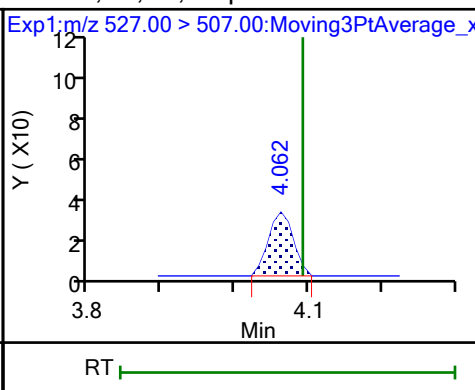
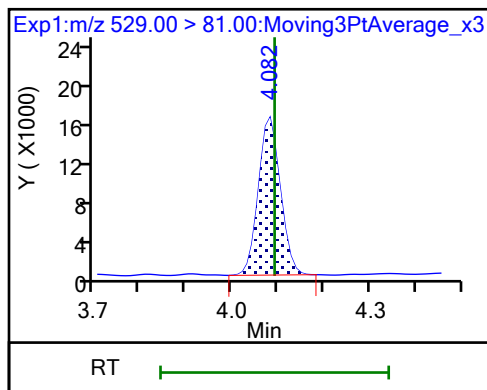
24 Perfluorodecanoic acid (ND)

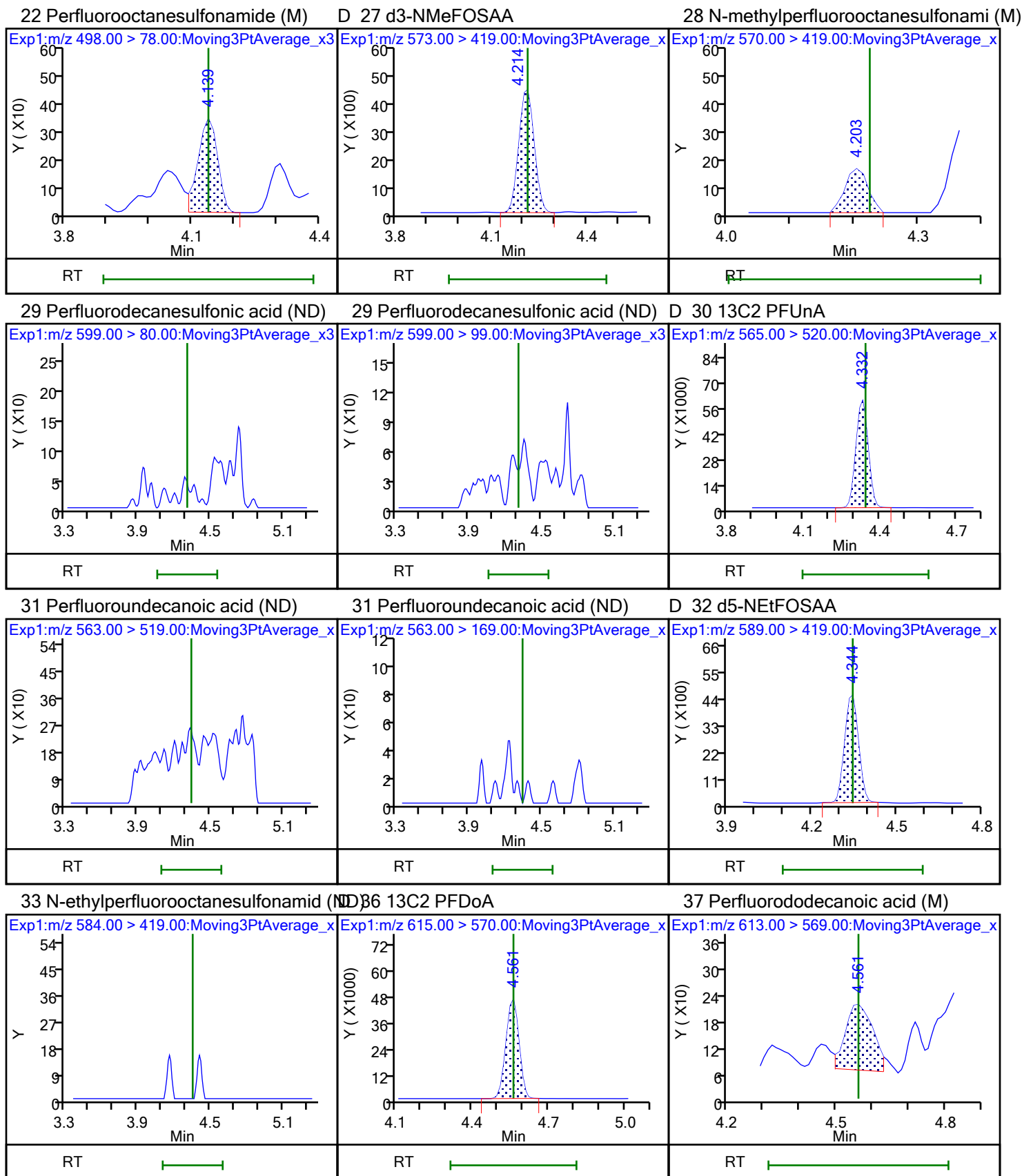


D 26 M2-8:2 FTS

25 1H,1H,2H,2H-perfluorodecanesulfonic acid (M)

21 13C8 FOSA

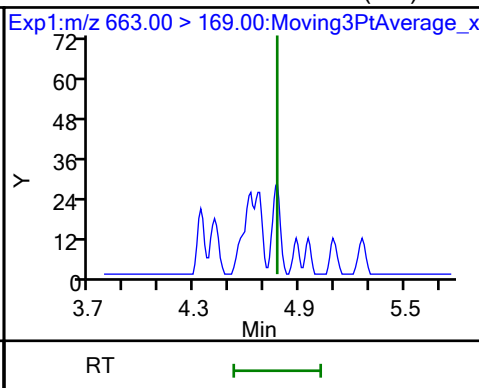
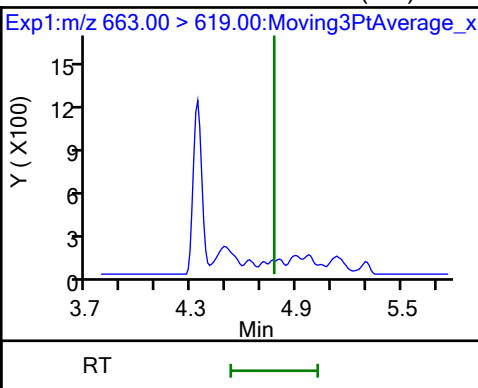
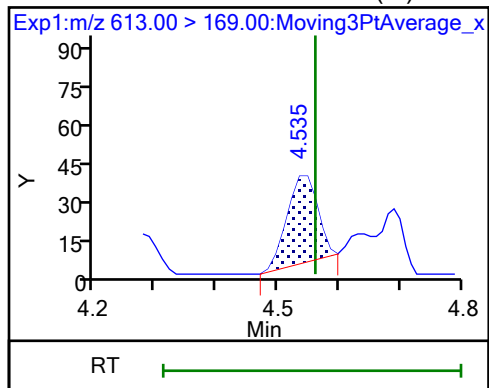




37 Perfluorododecanoic acid (M)

41 Perfluorotridecanoic acid (ND)

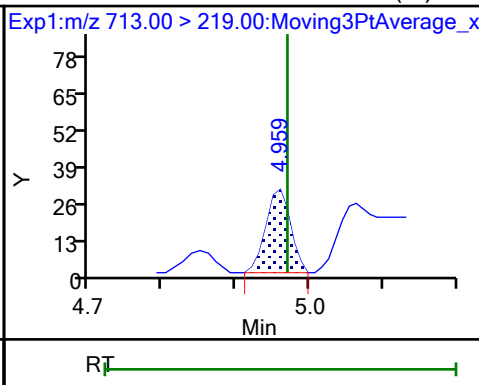
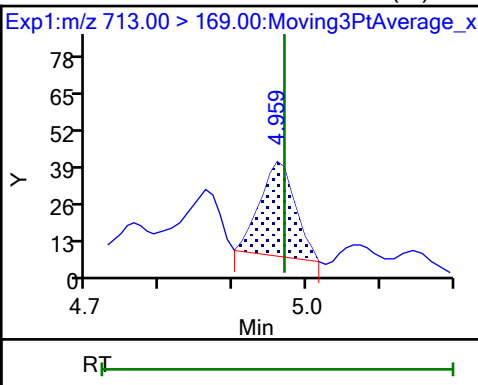
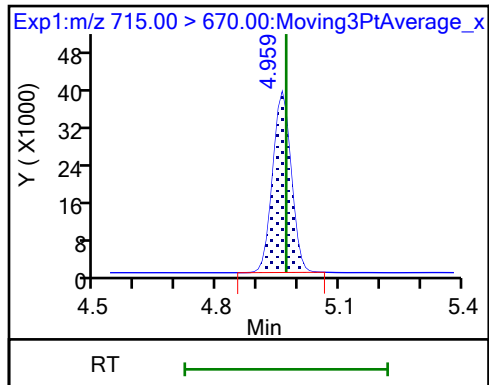
41 Perfluorotridecanoic acid (ND)



D 43 13C2 PFTeDA

42 Perfluorotetradecanoic acid (M)

42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

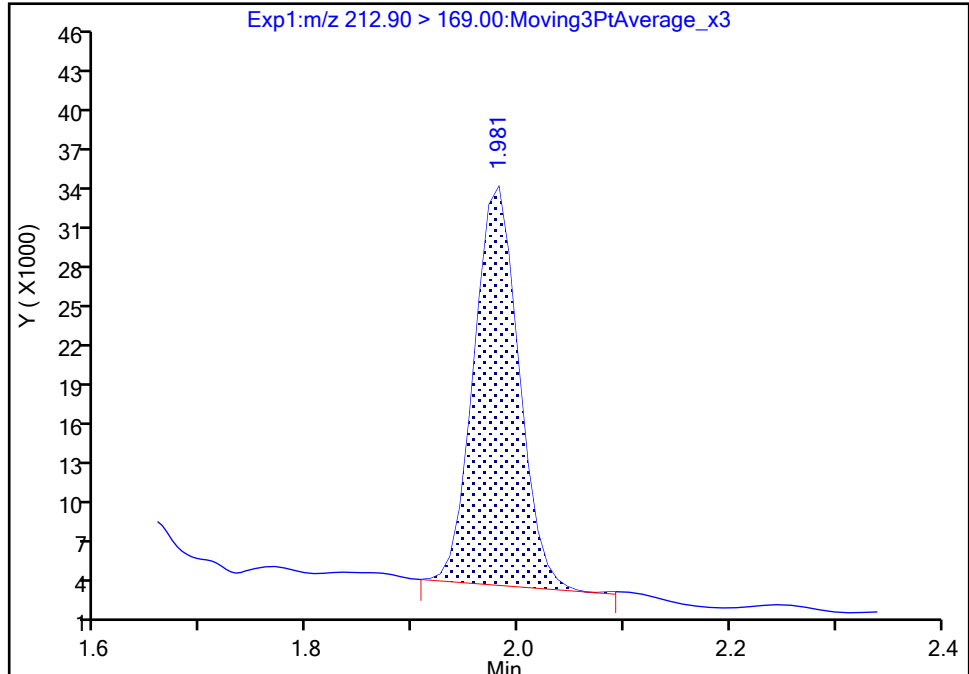
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d				
Injection Date:	27-Oct-2020 20:32:00	Instrument ID:	LC812		
Lims ID:	480-176996-C-7-A	Lab Sample ID:	200-176996-7		
Client ID:	B-54/B1266-W12				
Operator ID:	lc812tech	ALS Bottle#:	23	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

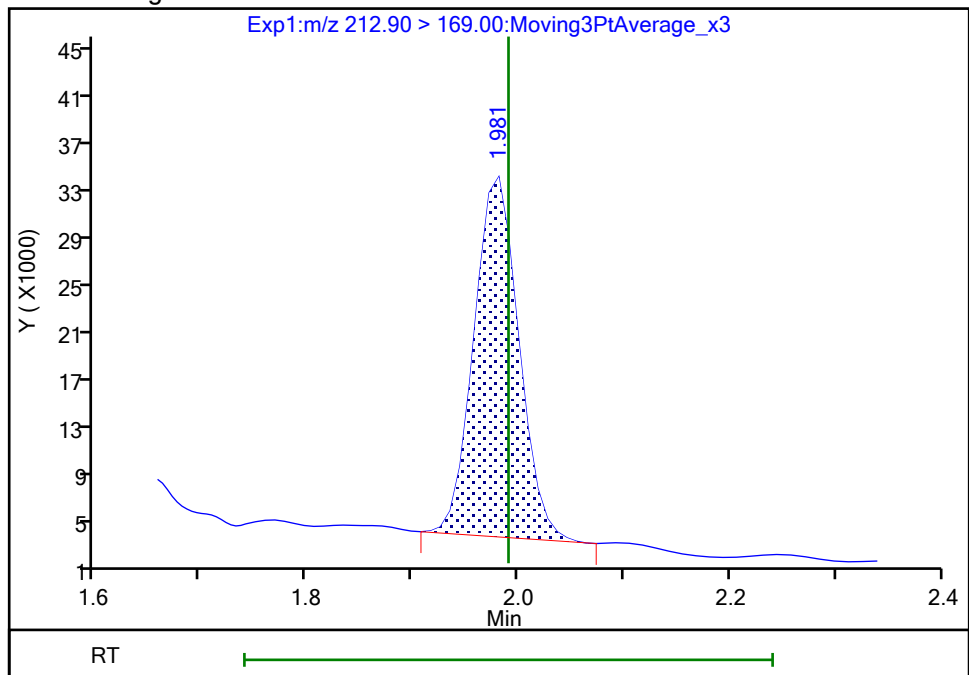
RT: 1.98
Area: 88418
Amount: 0.140661
Amount Units: ng/ml

Processing Integration Results



RT: 1.98
Area: 88219
Amount: 0.140345
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:11:49

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

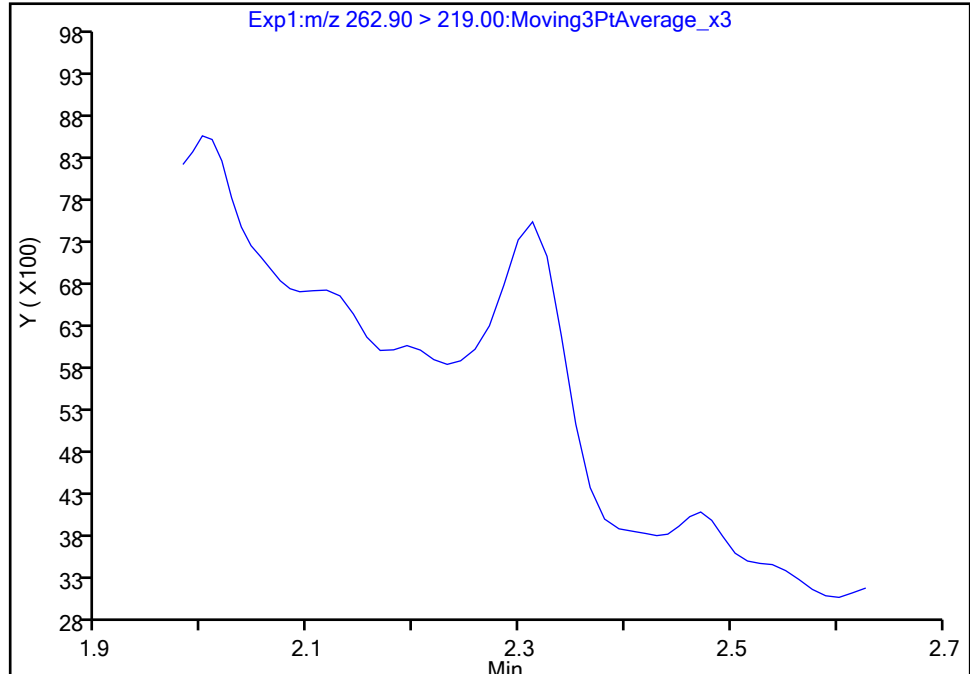
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d
Injection Date: 27-Oct-2020 20:32:00 Instrument ID: LC812
Lims ID: 480-176996-C-7-A Lab Sample ID: 200-176996-7
Client ID: B-54/B1266-W12
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

4 Perfluoropentanoic acid, CAS: 2706-90-3

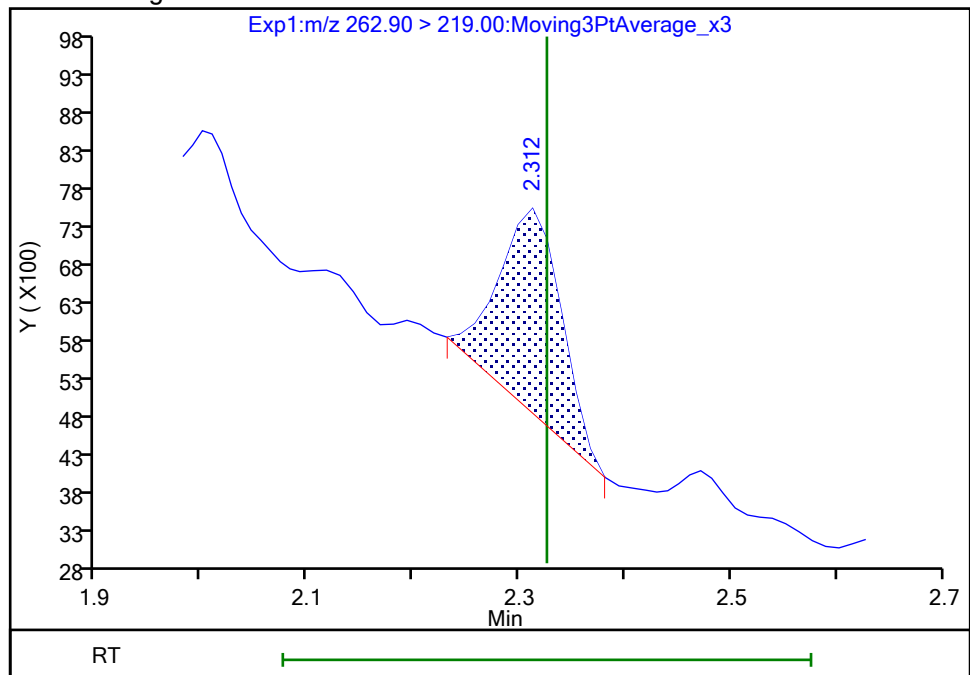
Signal: 1

Not Detected
Expected RT: 2.33

Processing Integration Results



Manual Integration Results



RT: 2.31
Area: 10825
Amount: 0.020545
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:11:54

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

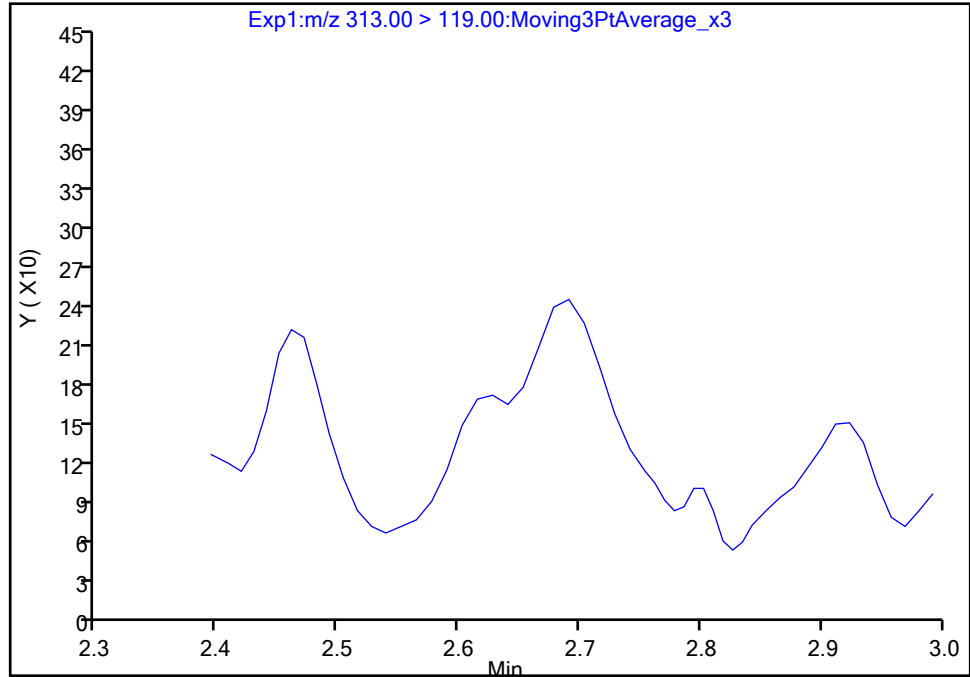
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d				
Injection Date:	27-Oct-2020 20:32:00	Instrument ID:	LC812		
Lims ID:	480-176996-C-7-A	Lab Sample ID:	200-176996-7		
Client ID:	B-54/B1266-W12				
Operator ID:	lc812tech	ALS Bottle#:	23	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

6 Perfluorohexanoic acid, CAS: 307-24-4

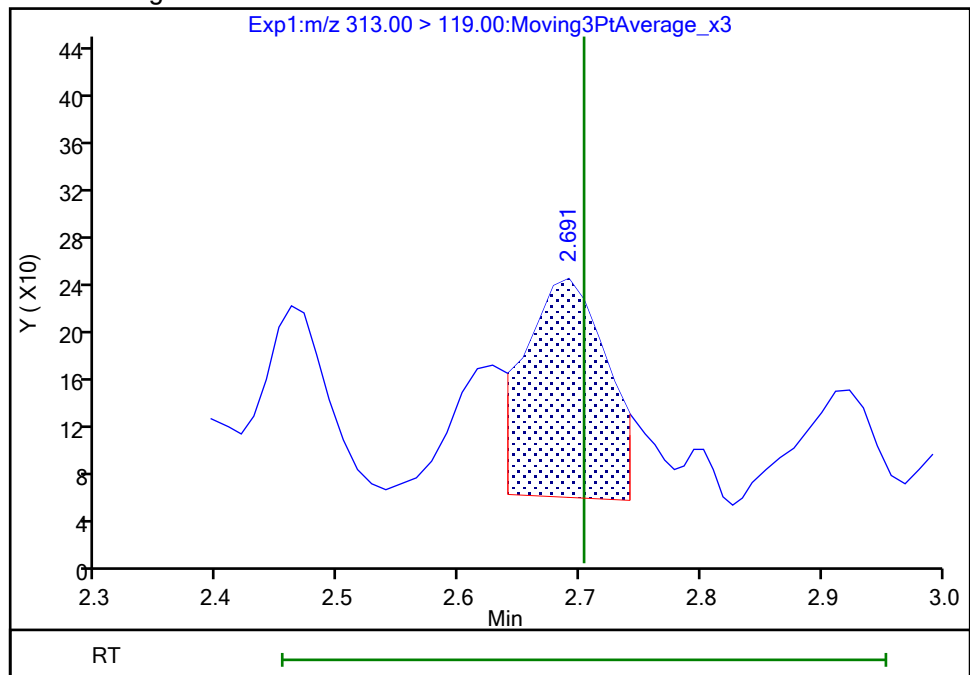
Signal: 2

Not Detected
Expected RT: 2.70

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:12:16

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

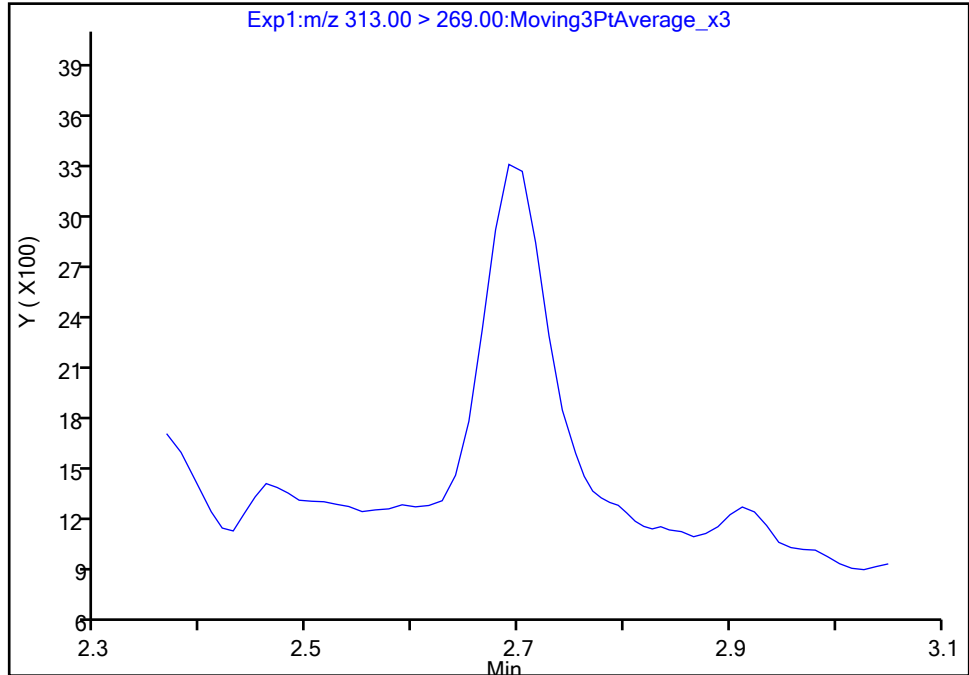
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d
Injection Date: 27-Oct-2020 20:32:00 Instrument ID: LC812
Lims ID: 480-176996-C-7-A Lab Sample ID: 200-176996-7
Client ID: B-54/B1266-W12
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

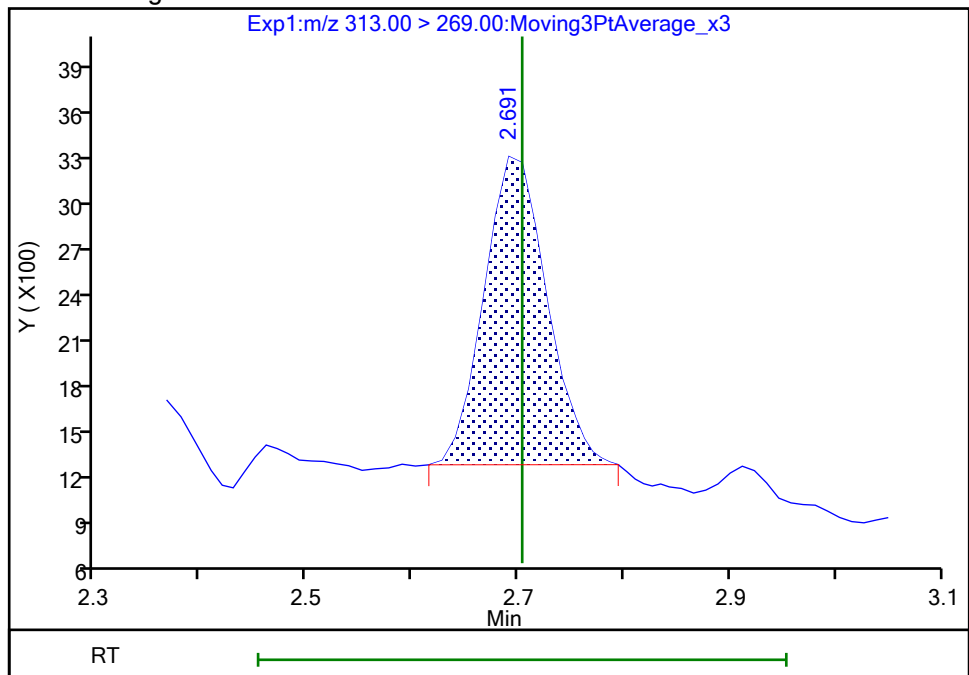
Not Detected
Expected RT: 2.70

Processing Integration Results



Manual Integration Results

RT: 2.69
Area: 8261
Amount: 0.015398
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 10:12:19

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

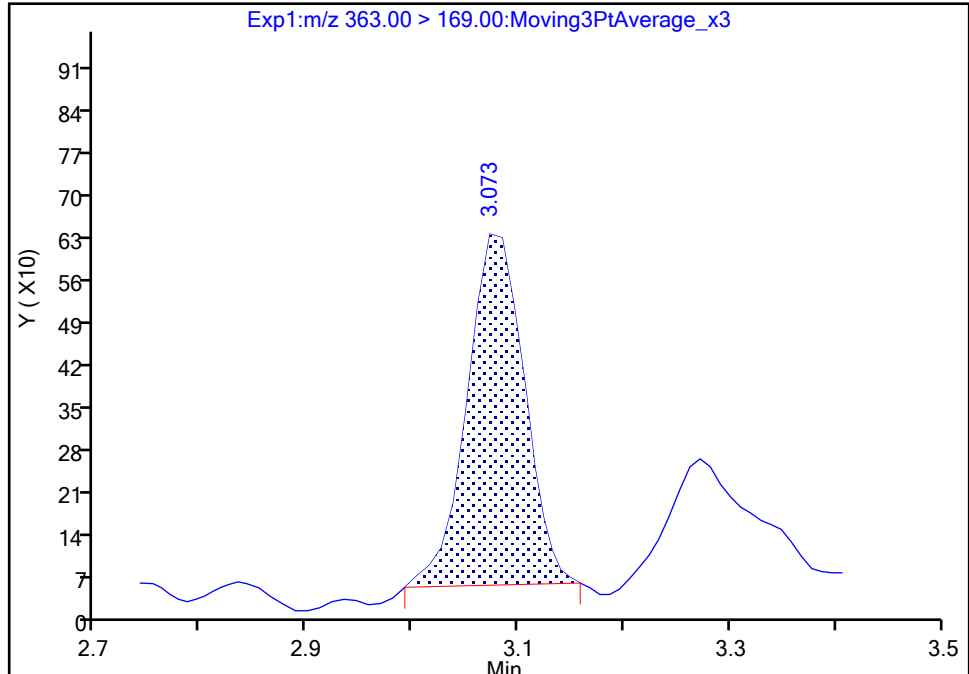
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d				
Injection Date:	27-Oct-2020 20:32:00	Instrument ID:	LC812		
Lims ID:	480-176996-C-7-A	Lab Sample ID:	200-176996-7		
Client ID:	B-54/B1266-W12				
Operator ID:	lc812tech	ALS Bottle#:	23	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

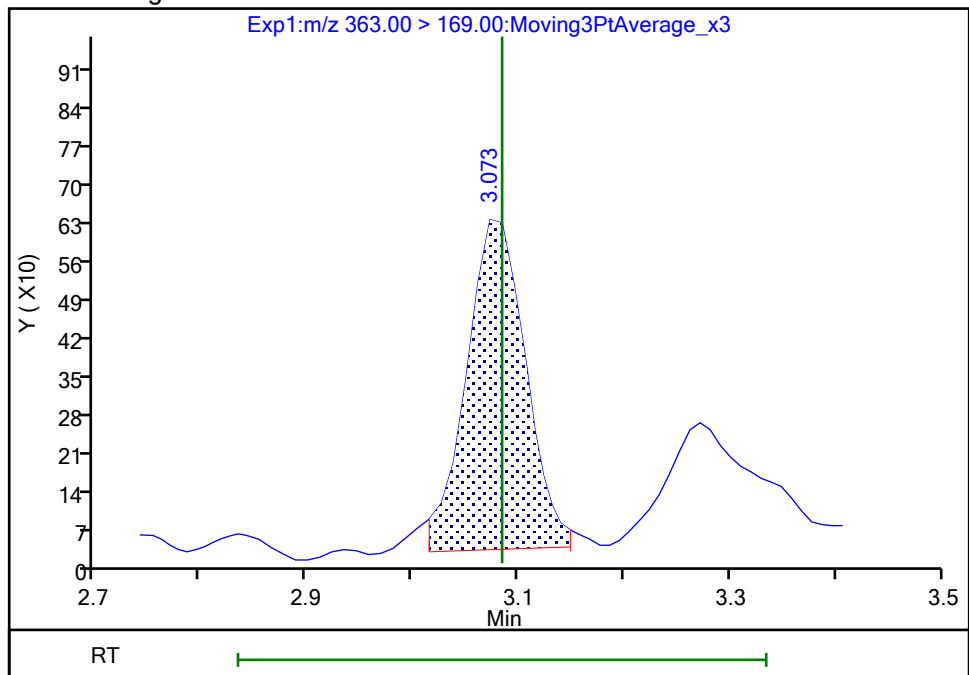
RT: 3.07
Area: 2191
Amount: 0.015602
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 2350
Amount: 0.015602
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:12:54

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

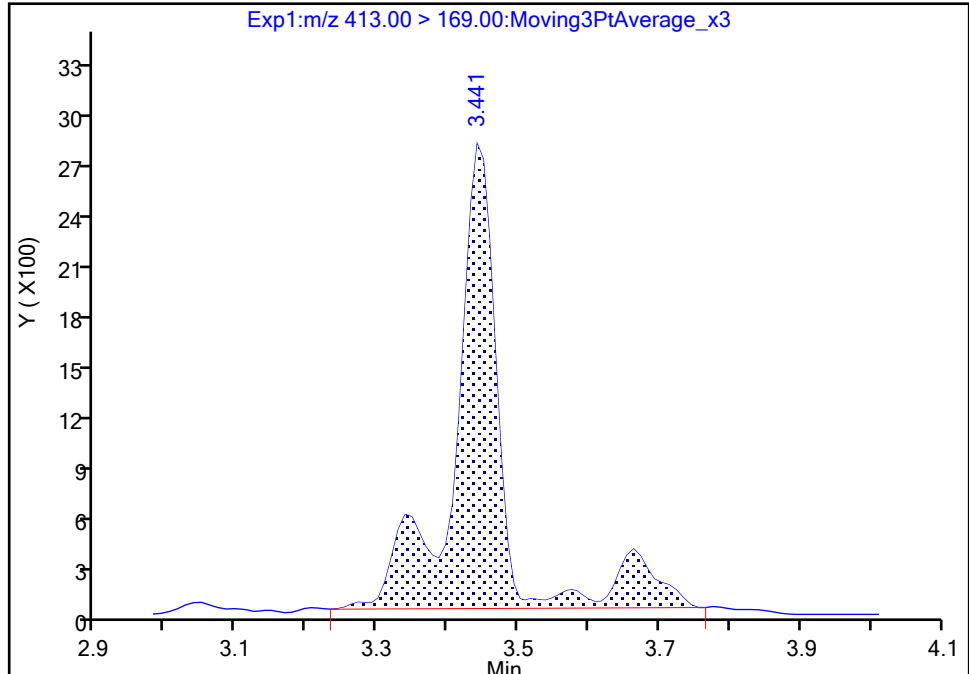
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d				
Injection Date:	27-Oct-2020 20:32:00	Instrument ID:	LC812		
Lims ID:	480-176996-C-7-A	Lab Sample ID:	200-176996-7		
Client ID:	B-54/B1266-W12				
Operator ID:	lc812tech	ALS Bottle#:	23	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

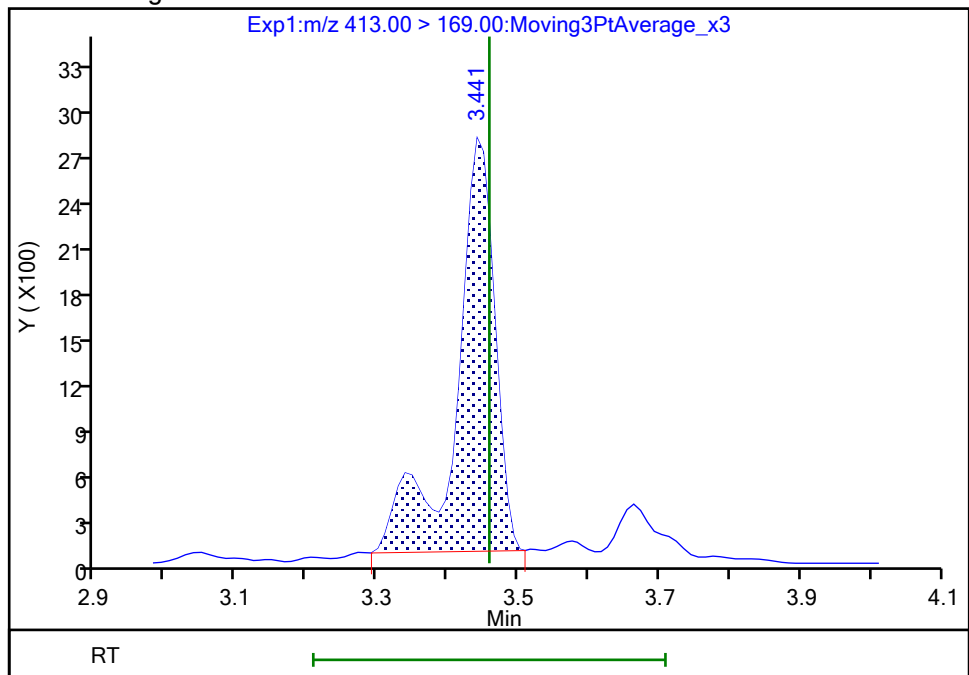
RT: 3.44
Area: 12845
Amount: 0.048116
Amount Units: ng/ml

Processing Integration Results



RT: 3.44
Area: 10435
Amount: 0.048116
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:13:54

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

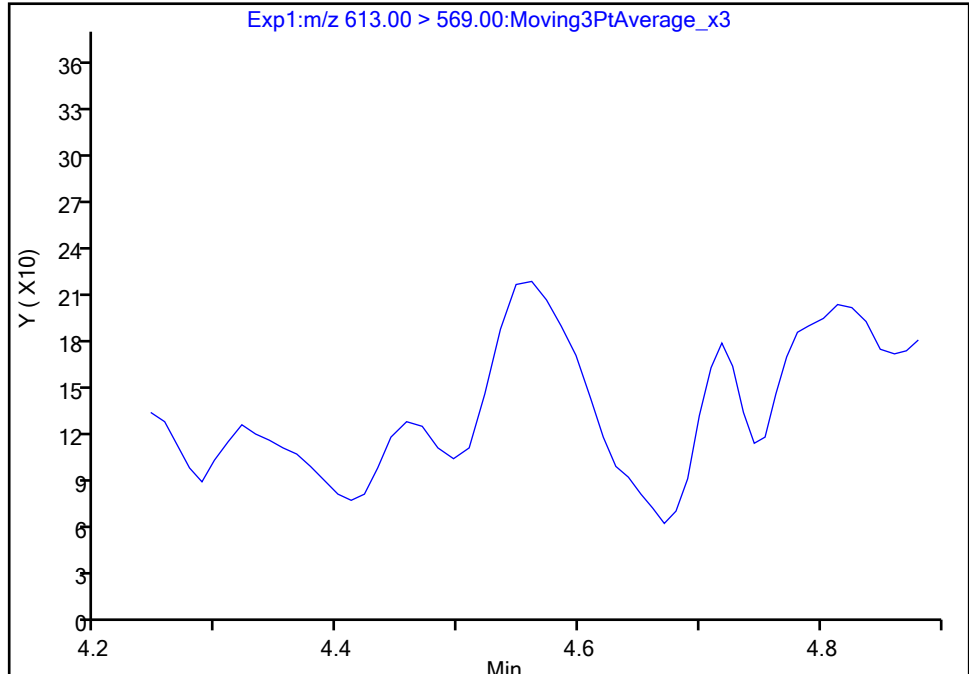
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d
Injection Date: 27-Oct-2020 20:32:00 Instrument ID: LC812
Lims ID: 480-176996-C-7-A Lab Sample ID: 200-176996-7
Client ID: B-54/B1266-W12
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

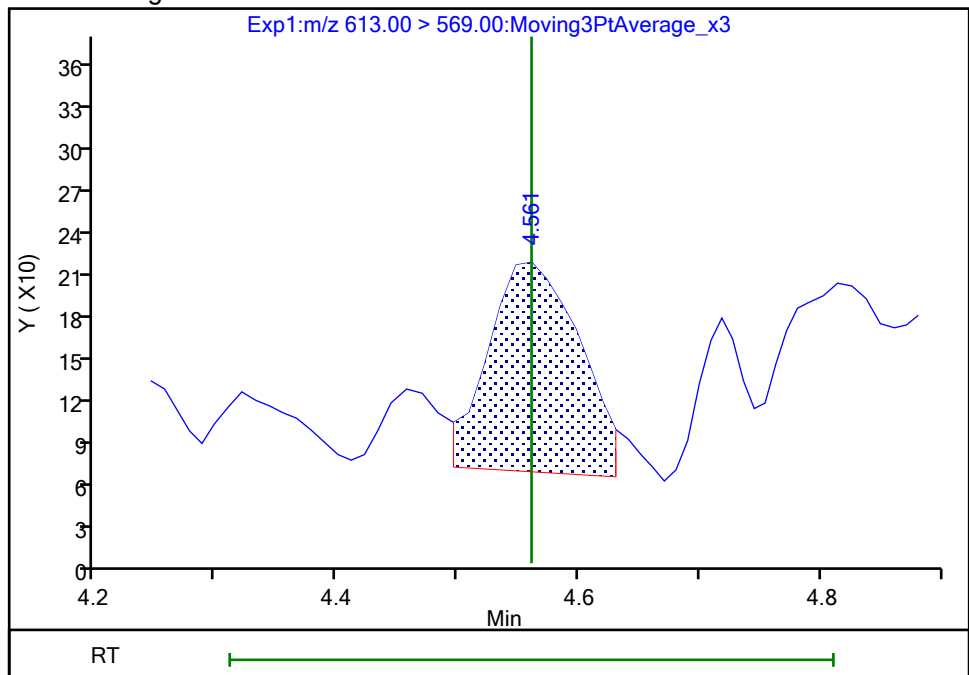
Not Detected
Expected RT: 4.56

Processing Integration Results



RT: 4.56
Area: 785
Amount: 0.006065
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:14:57

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

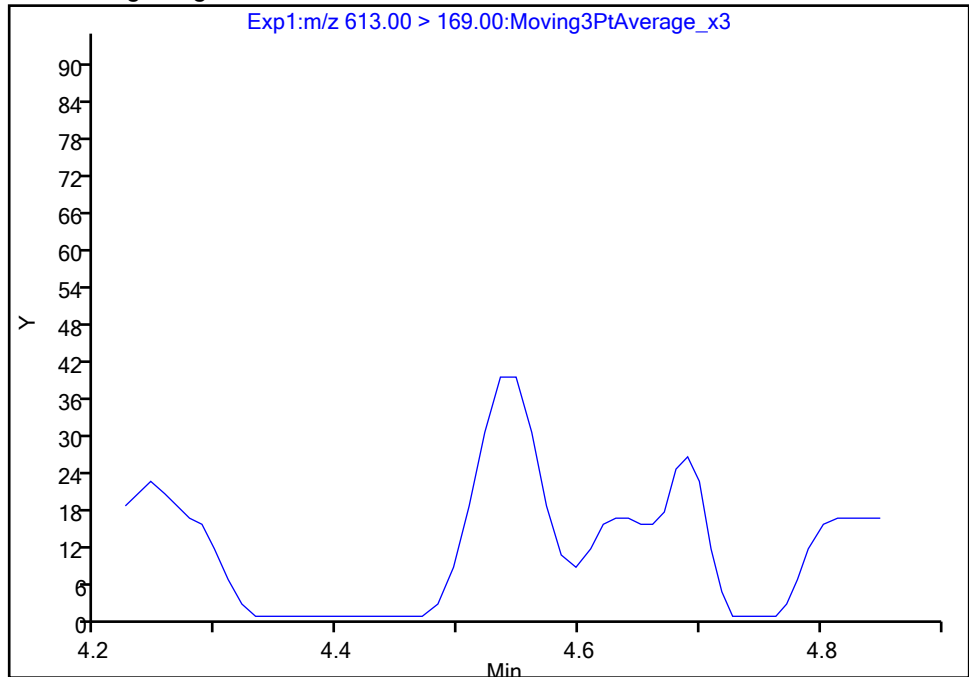
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d
Injection Date: 27-Oct-2020 20:32:00 Instrument ID: LC812
Lims ID: 480-176996-C-7-A Lab Sample ID: 200-176996-7
Client ID: B-54/B1266-W12
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

37 Perfluorododecanoic acid, CAS: 307-55-1

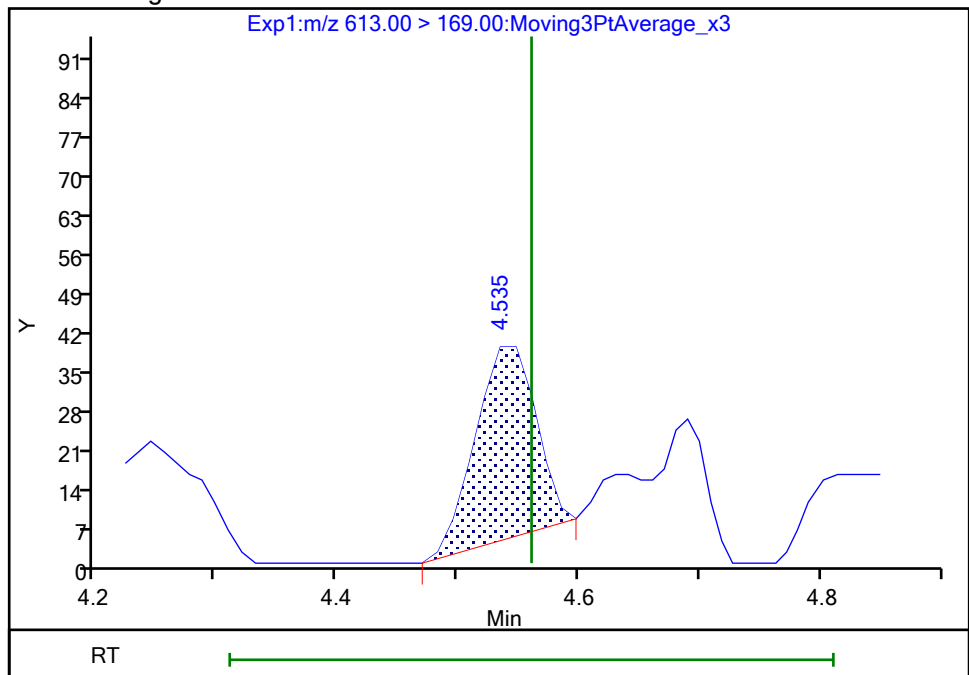
Signal: 2

Not Detected
Expected RT: 4.56

Processing Integration Results



Manual Integration Results



RT: 4.53
Area: 121
Amount: 0.006065
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:15:03

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

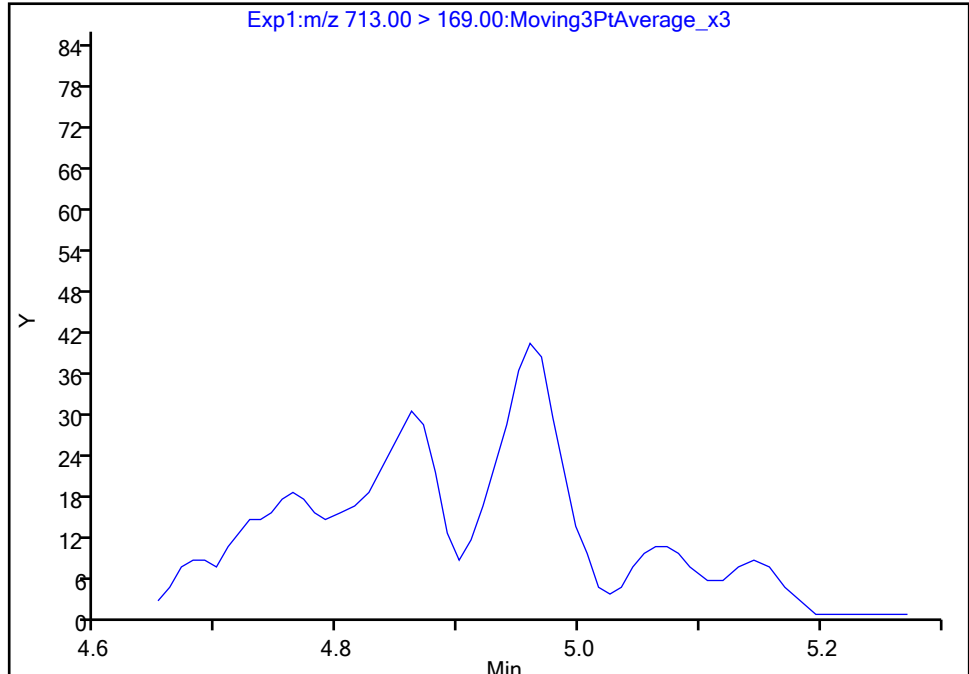
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d				
Injection Date:	27-Oct-2020 20:32:00	Instrument ID:	LC812		
Lims ID:	480-176996-C-7-A	Lab Sample ID:	200-176996-7		
Client ID:	B-54/B1266-W12				
Operator ID:	lc812tech	ALS Bottle#:	23	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

42 Perfluorotetradecanoic acid, CAS: 376-06-7

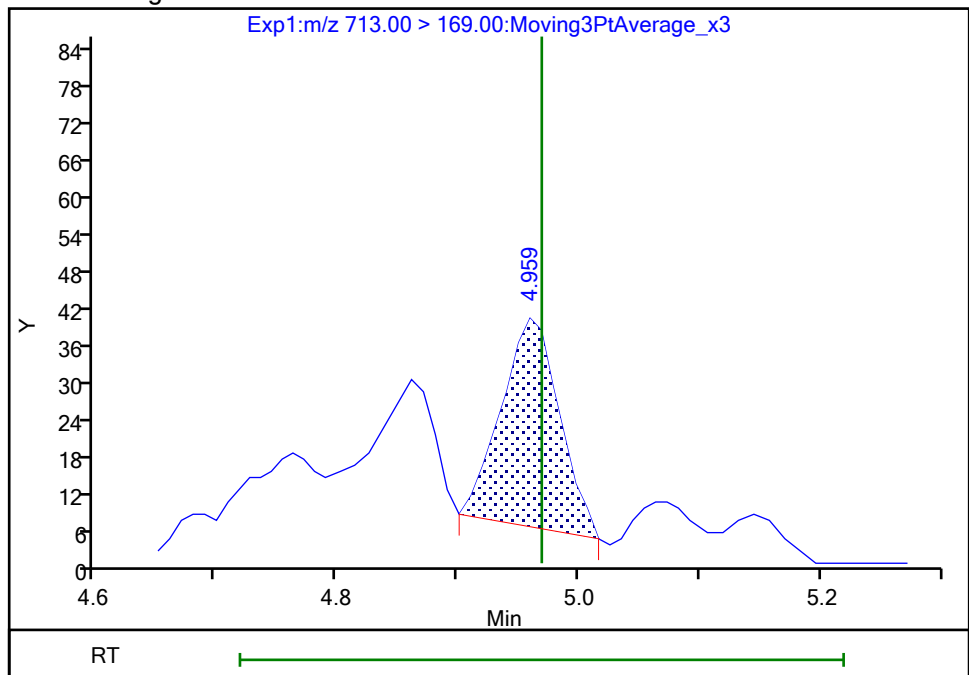
Signal: 1

Not Detected
Expected RT: 4.97

Processing Integration Results



Manual Integration Results



RT: 4.96
Area: 113
Amount: 0.005073
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:15:11

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

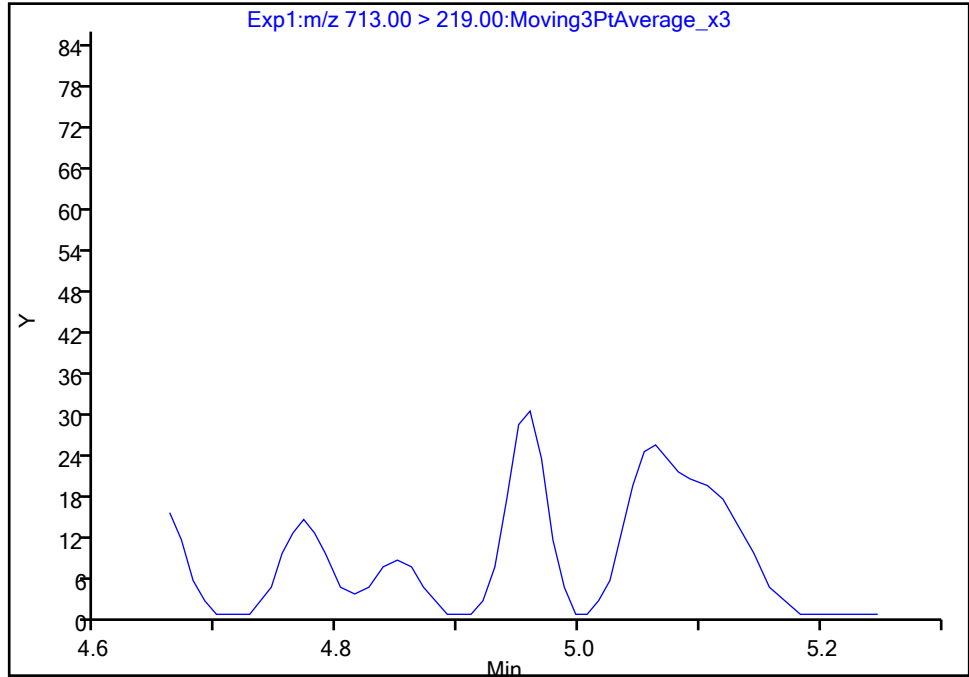
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d
Injection Date: 27-Oct-2020 20:32:00 Instrument ID: LC812
Lims ID: 480-176996-C-7-A Lab Sample ID: 200-176996-7
Client ID: B-54/B1266-W12
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

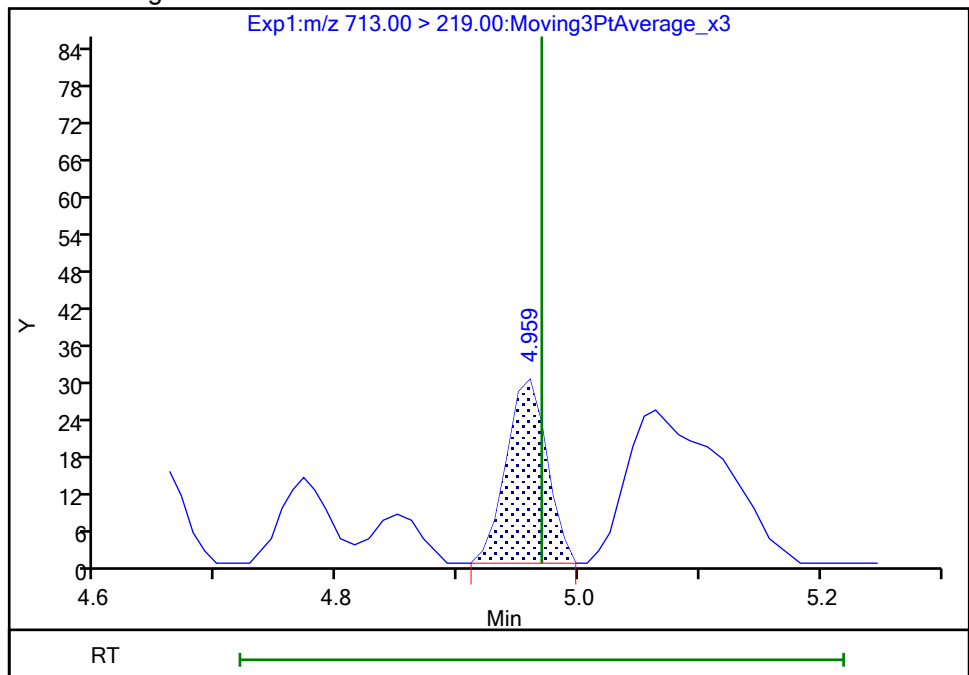
Signal: 2

Not Detected
Expected RT: 4.97

Processing Integration Results



Manual Integration Results



RT: 4.96
Area: 70
Amount: 0.005073
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:15:14

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 419 of 906

Eurofins TestAmerica, Burlington

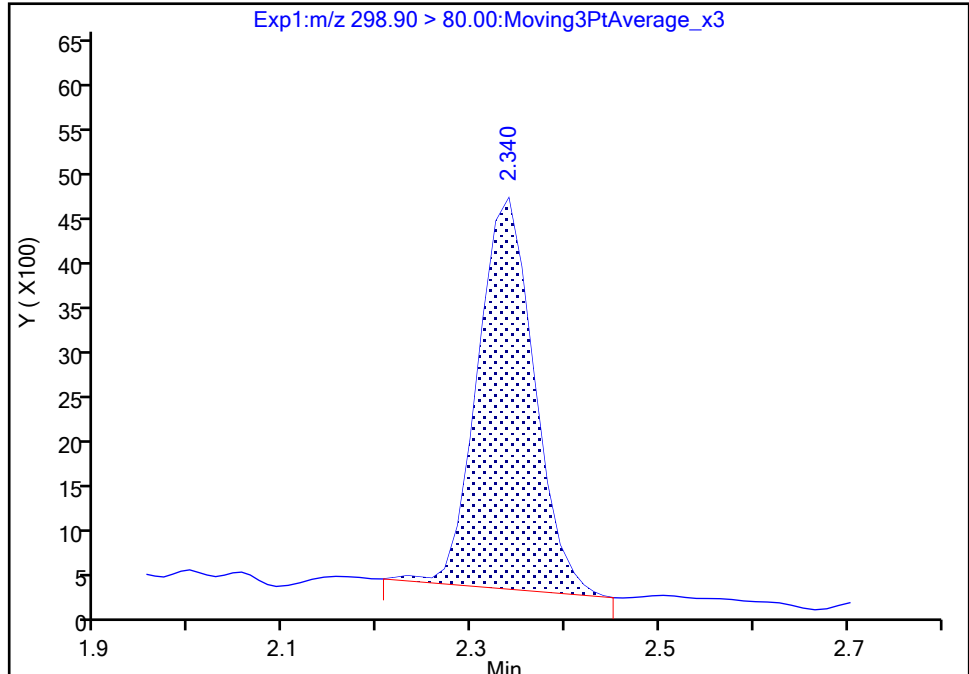
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d				
Injection Date:	27-Oct-2020 20:32:00	Instrument ID:	LC812		
Lims ID:	480-176996-C-7-A	Lab Sample ID:	200-176996-7		
Client ID:	B-54/B1266-W12				
Operator ID:	lc812tech	ALS Bottle#:	23	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

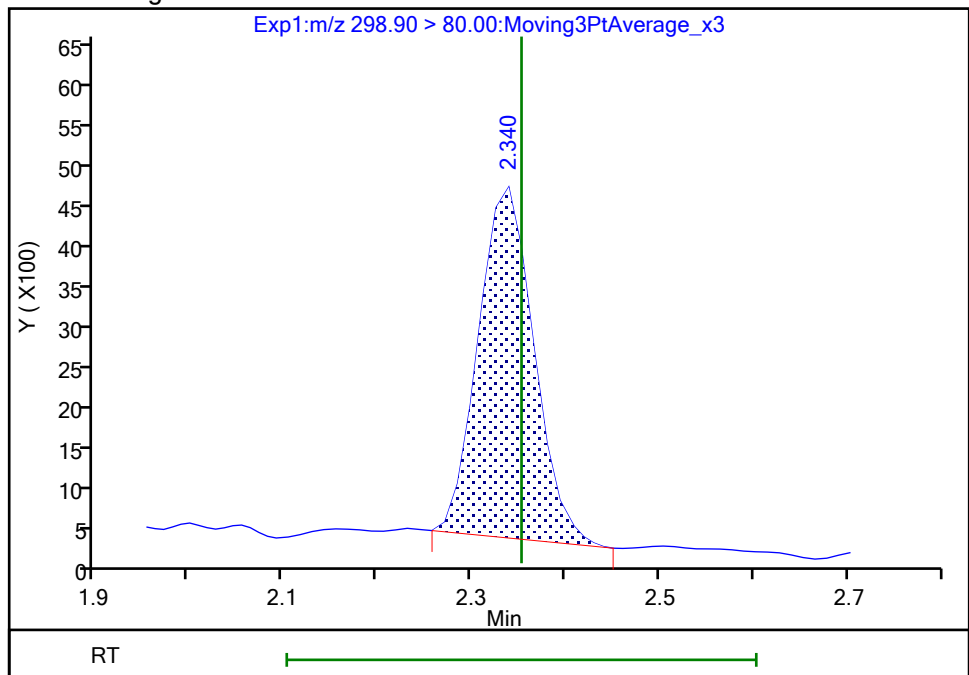
RT: 2.34
Area: 18095
Amount: 0.030800
Amount Units: ng/ml

Processing Integration Results



RT: 2.34
Area: 17665
Amount: 0.030069
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:12:00

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

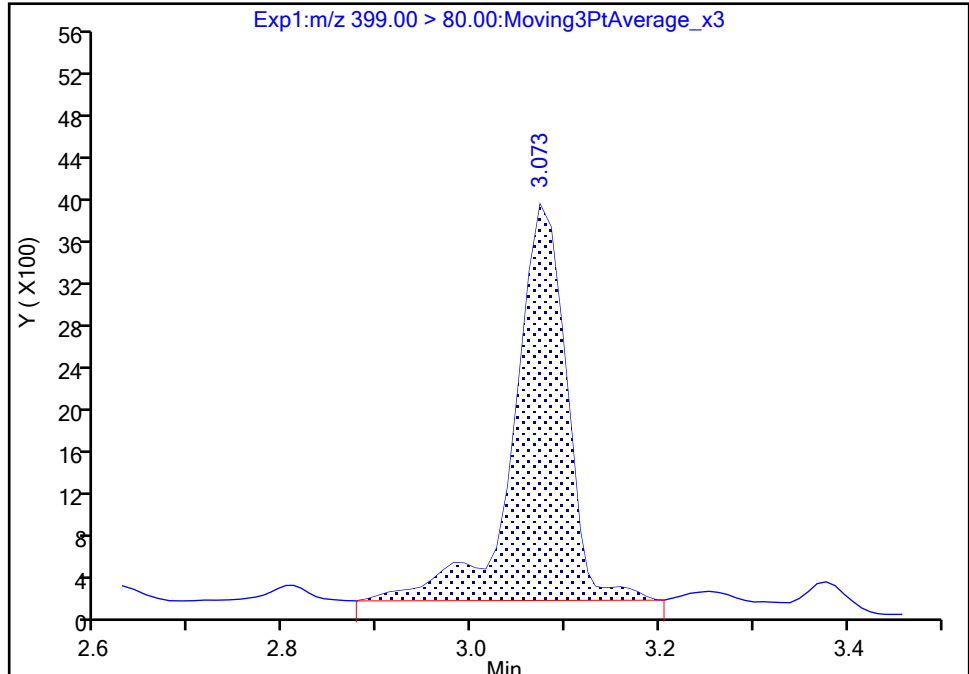
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d
Injection Date: 27-Oct-2020 20:32:00 Instrument ID: LC812
Lims ID: 480-176996-C-7-A Lab Sample ID: 200-176996-7
Client ID: B-54/B1266-W12
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

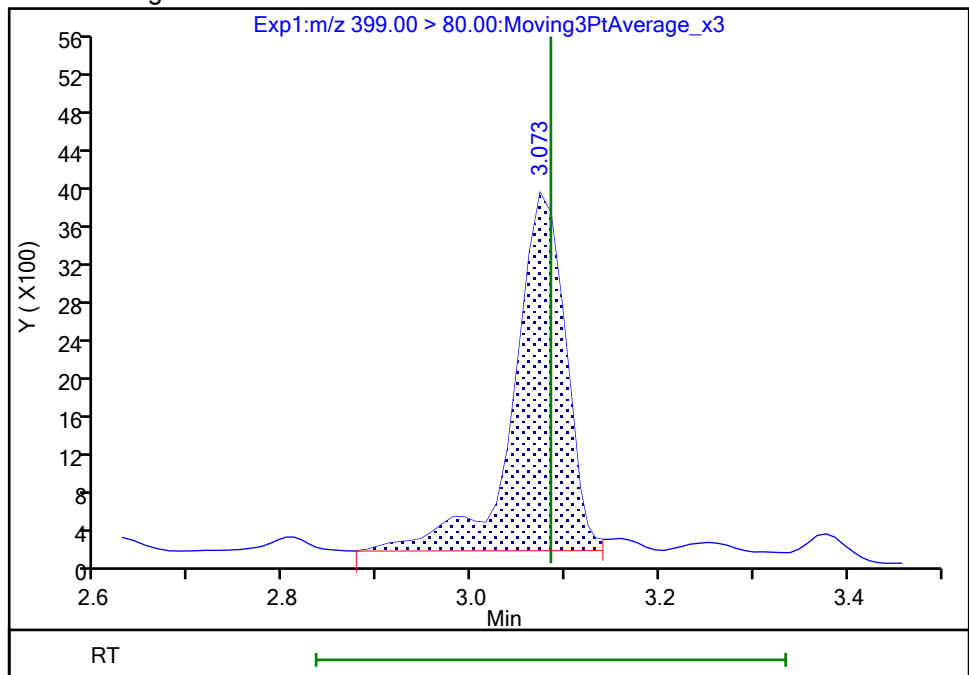
RT: 3.07
Area: 14957
Amount: 0.031567
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 14664
Amount: 0.030949
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:12:26

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

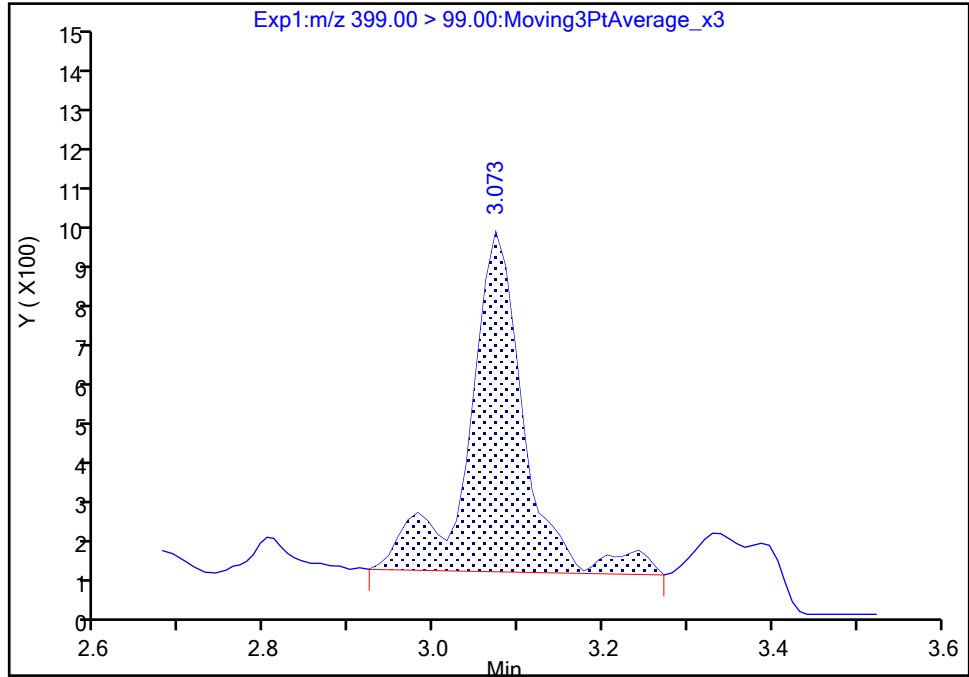
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d
Injection Date: 27-Oct-2020 20:32:00 Instrument ID: LC812
Lims ID: 480-176996-C-7-A Lab Sample ID: 200-176996-7
Client ID: B-54/B1266-W12
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

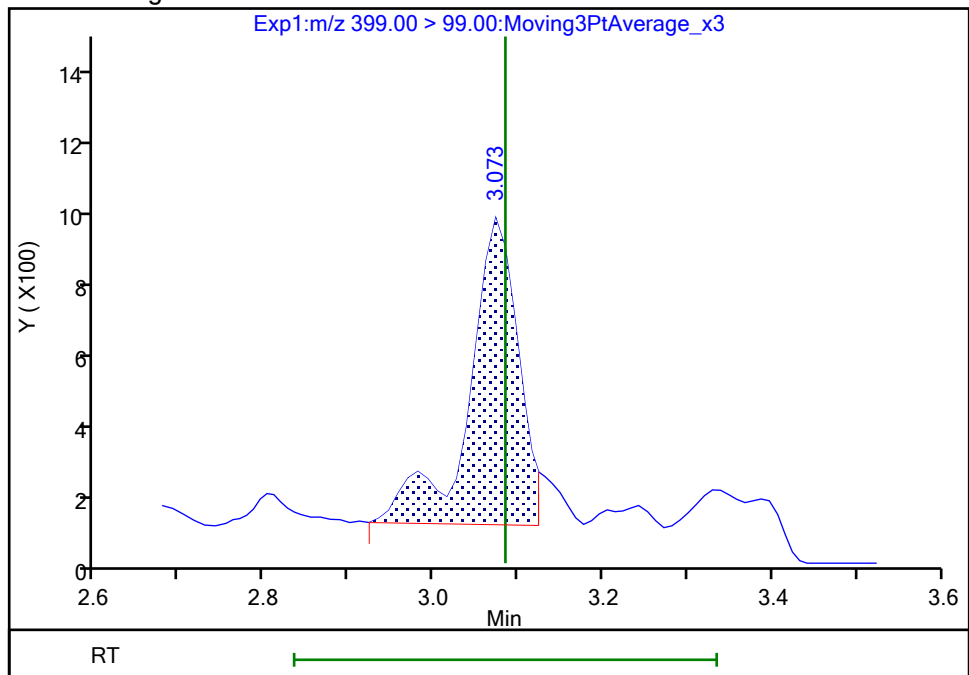
RT: 3.07
Area: 3890
Amount: 0.031567
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 3426
Amount: 0.030949
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:12:29

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 422 of 906

Eurofins TestAmerica, Burlington

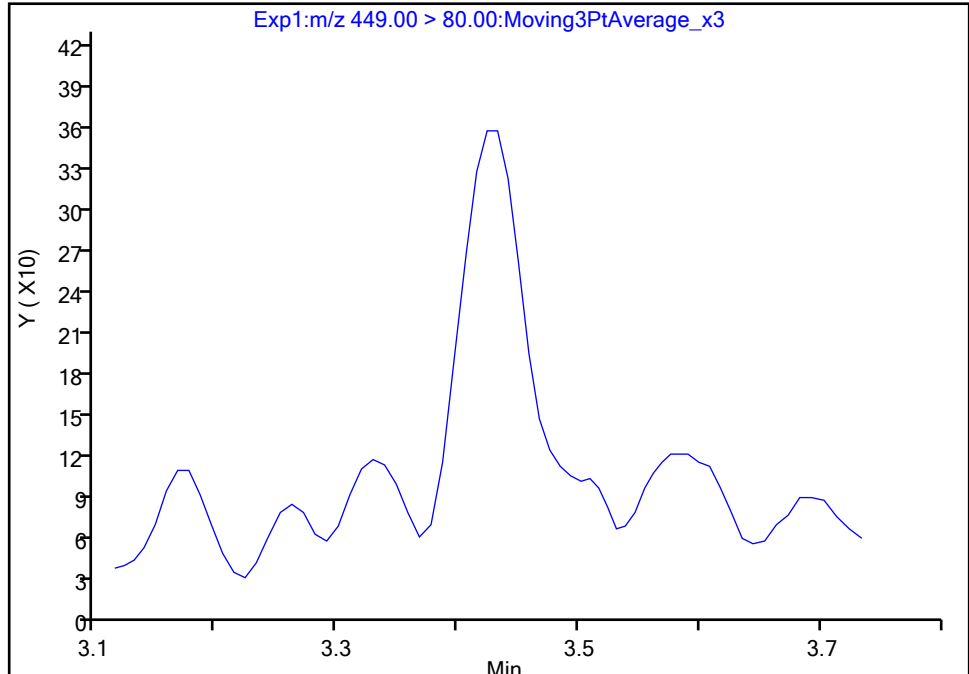
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d				
Injection Date:	27-Oct-2020 20:32:00	Instrument ID:	LC812		
Lims ID:	480-176996-C-7-A	Lab Sample ID:	200-176996-7		
Client ID:	B-54/B1266-W12				
Operator ID:	lc812tech	ALS Bottle#:	23	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

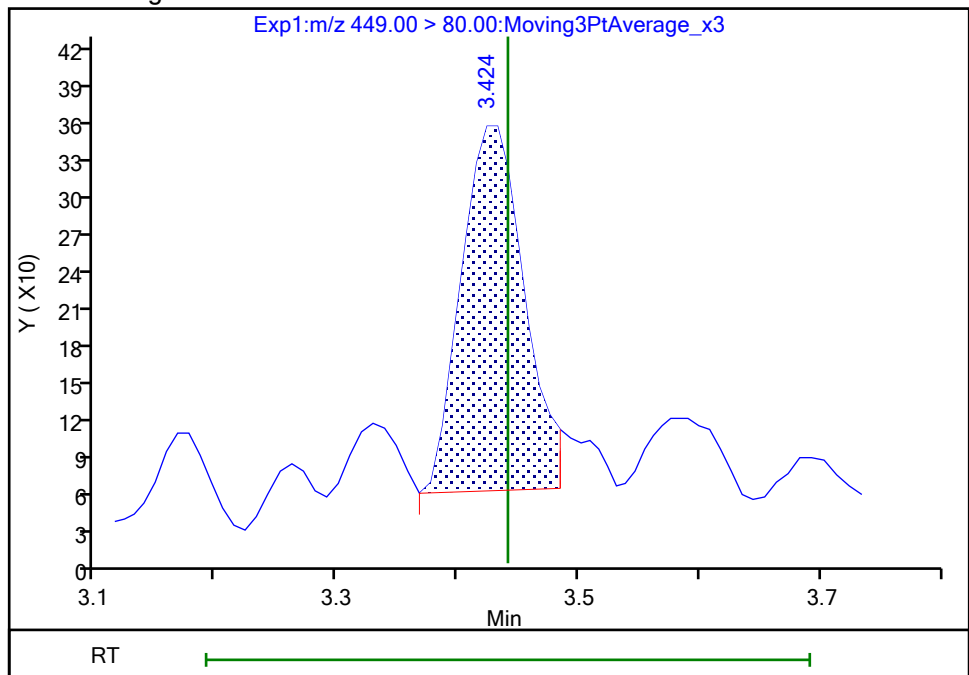
Signal: 1

Not Detected
Expected RT: 3.44

Processing Integration Results



Manual Integration Results



RT: 3.42
Area: 1070
Amount: 0.003400
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:13:04

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

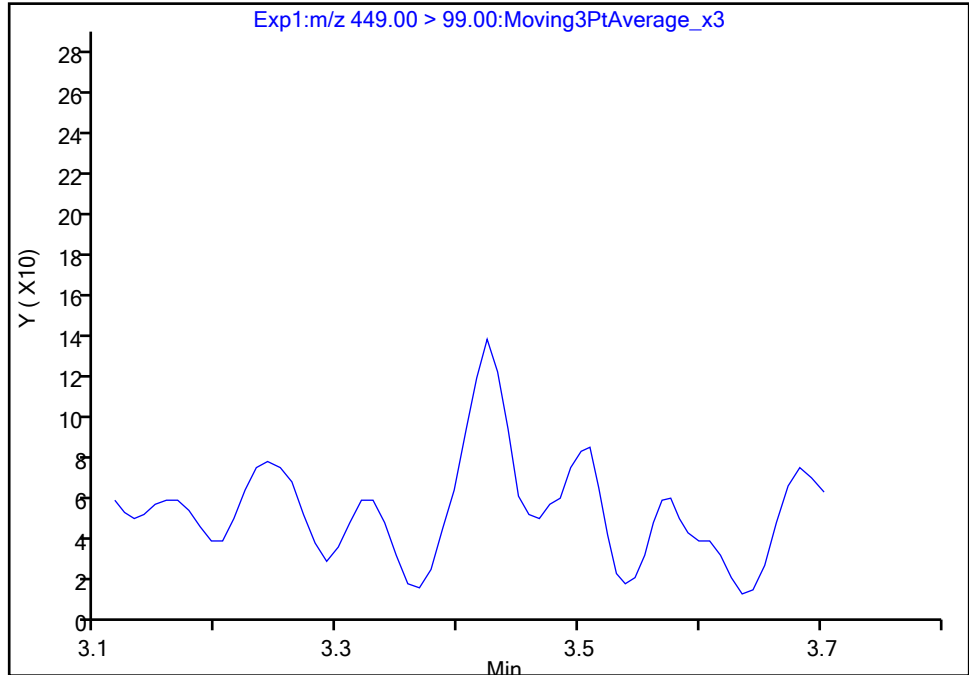
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d
Injection Date: 27-Oct-2020 20:32:00 Instrument ID: LC812
Lims ID: 480-176996-C-7-A Lab Sample ID: 200-176996-7
Client ID: B-54/B1266-W12
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

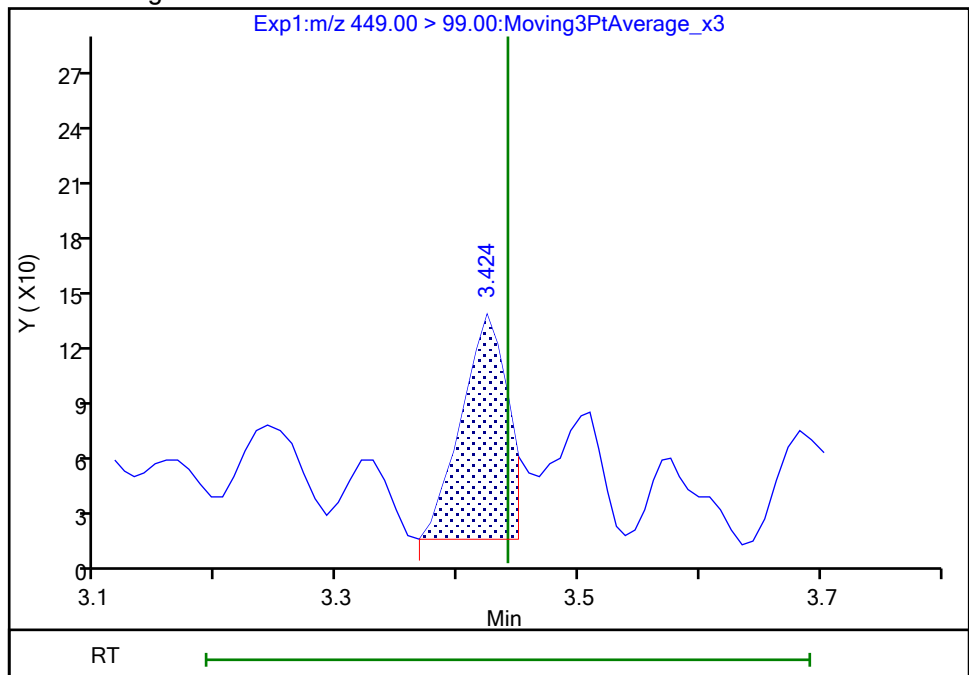
Not Detected
Expected RT: 3.44

Processing Integration Results



Manual Integration Results

RT: 3.42
Area: 317
Amount: 0.003400
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 10:13:21

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

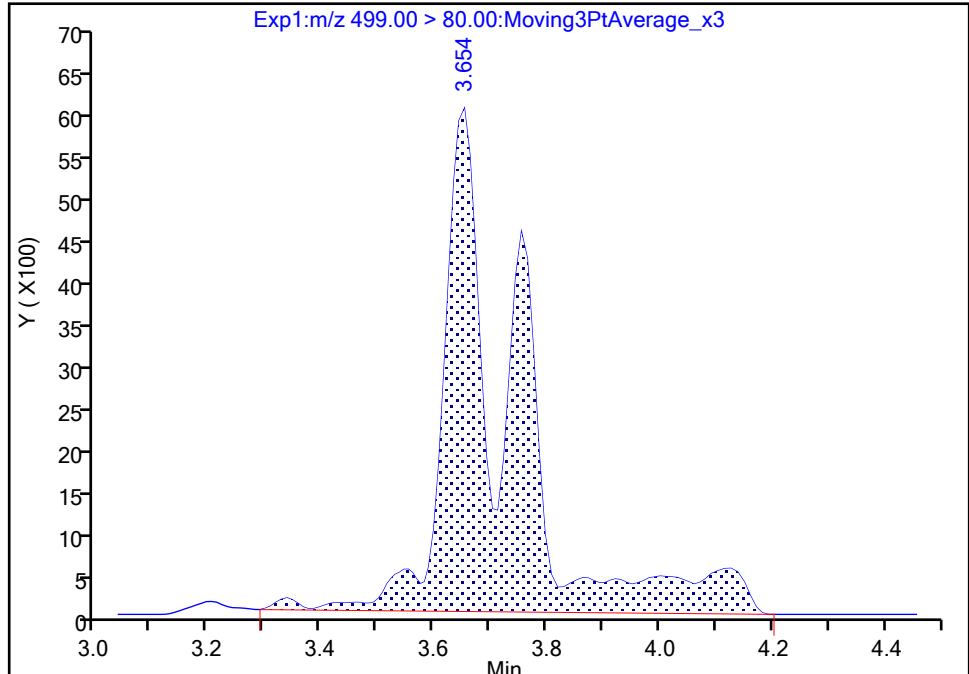
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d				
Injection Date:	27-Oct-2020 20:32:00	Instrument ID:	LC812		
Lims ID:	480-176996-C-7-A	Lab Sample ID:	200-176996-7		
Client ID:	B-54/B1266-W12				
Operator ID:	lc812tech	ALS Bottle#:	23	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

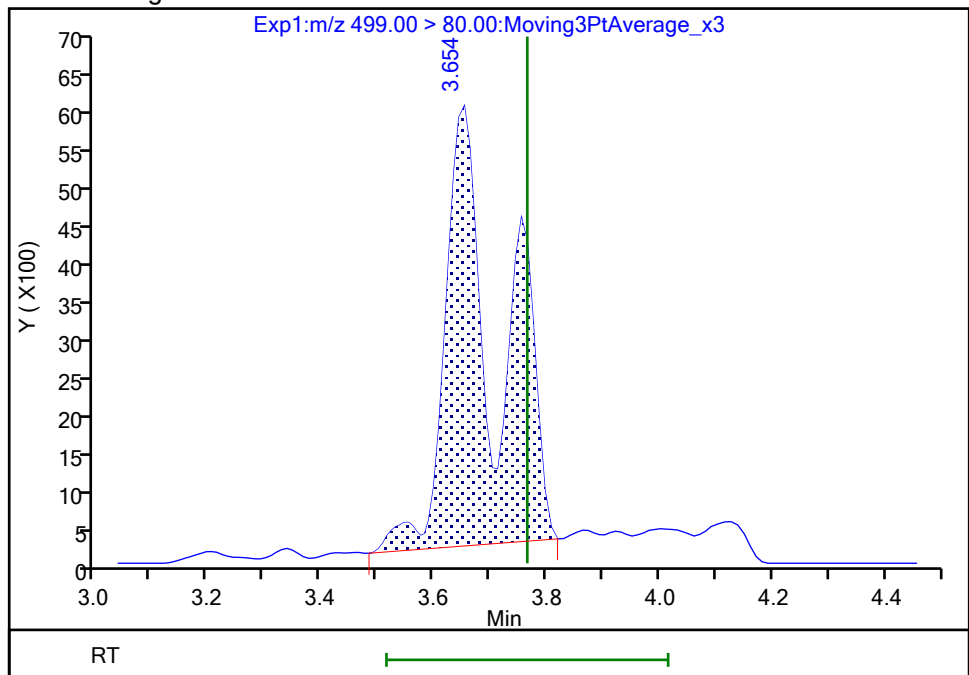
RT: 3.65
Area: 51453
Amount: 0.174291
Amount Units: ng/ml

Processing Integration Results



RT: 3.65
Area: 38282
Amount: 0.129676
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:14:04

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

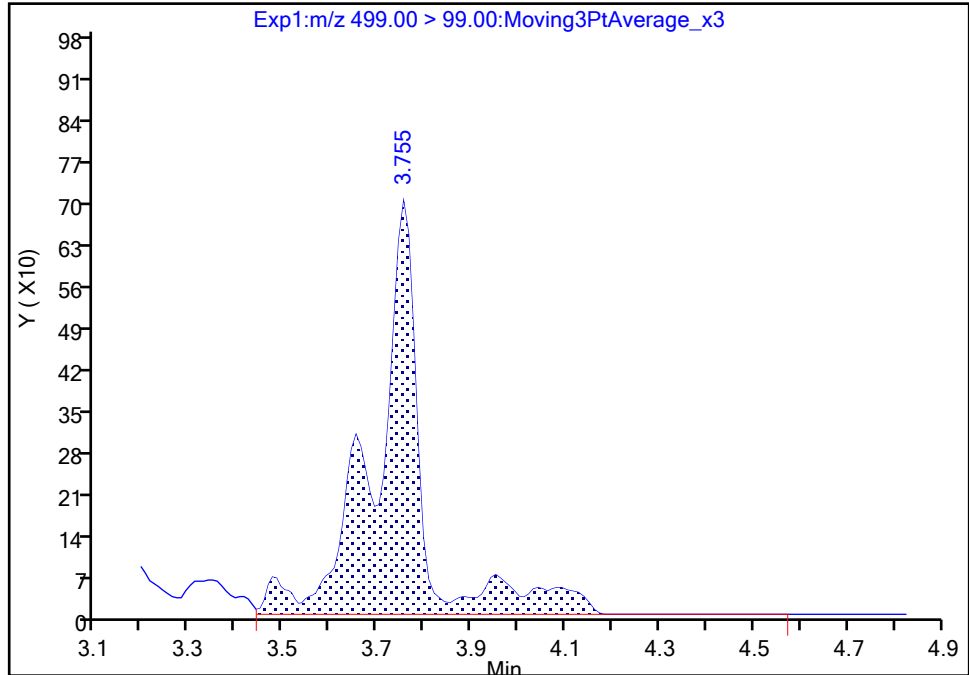
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d
Injection Date: 27-Oct-2020 20:32:00 Instrument ID: LC812
Lims ID: 480-176996-C-7-A Lab Sample ID: 200-176996-7
Client ID: B-54/B1266-W12
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

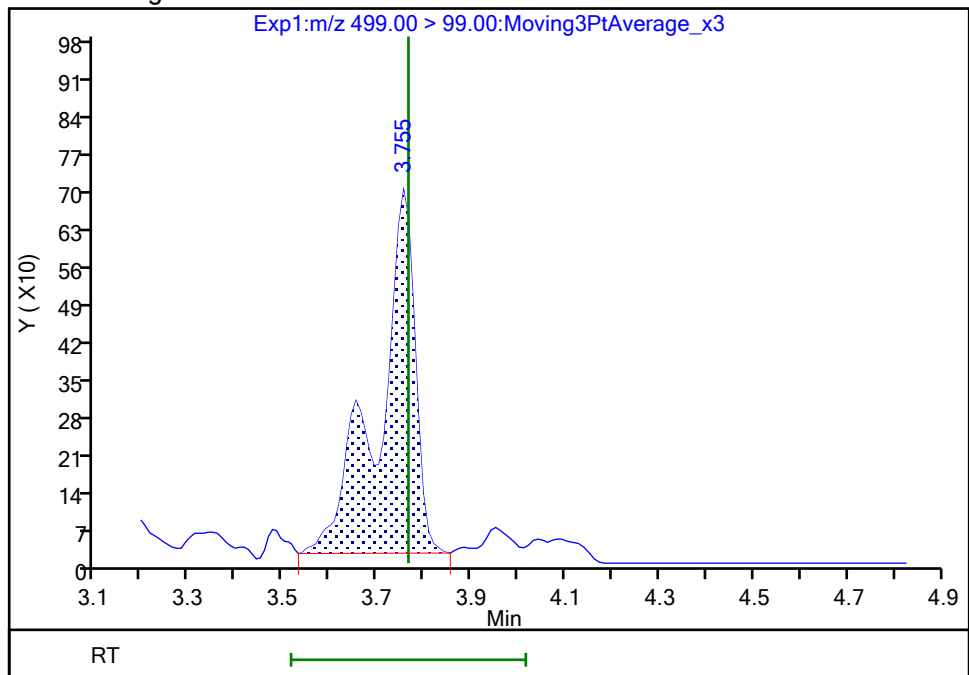
RT: 3.76
Area: 4959
Amount: 0.174291
Amount Units: ng/ml

Processing Integration Results



RT: 3.76
Area: 3687
Amount: 0.129676
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:14:12

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

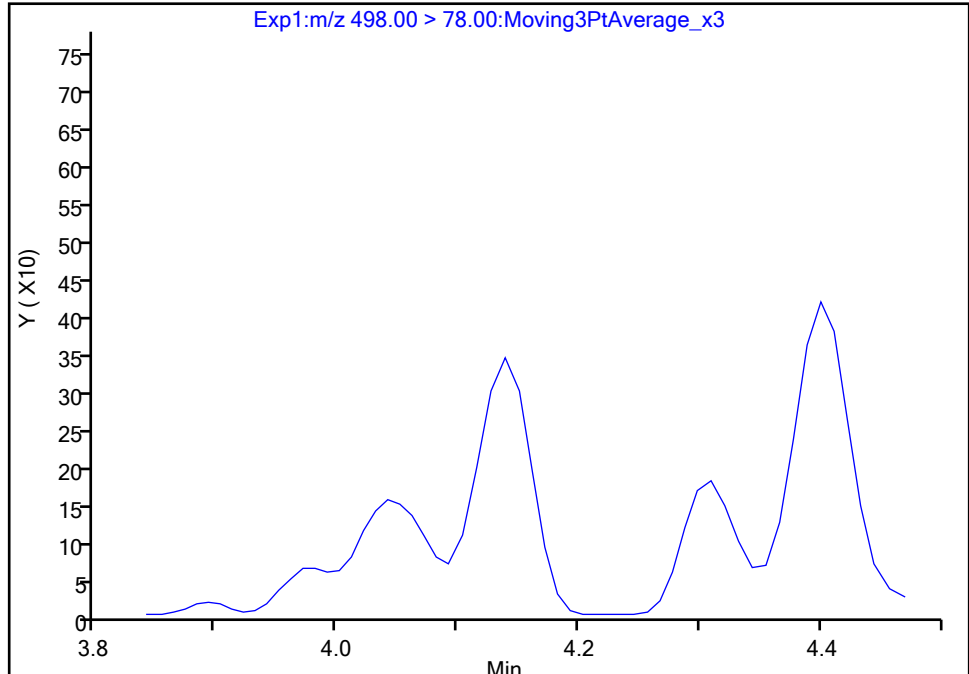
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d
Injection Date: 27-Oct-2020 20:32:00 Instrument ID: LC812
Lims ID: 480-176996-C-7-A Lab Sample ID: 200-176996-7
Client ID: B-54/B1266-W12
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

22 Perfluorooctanesulfonamide, CAS: 754-91-6

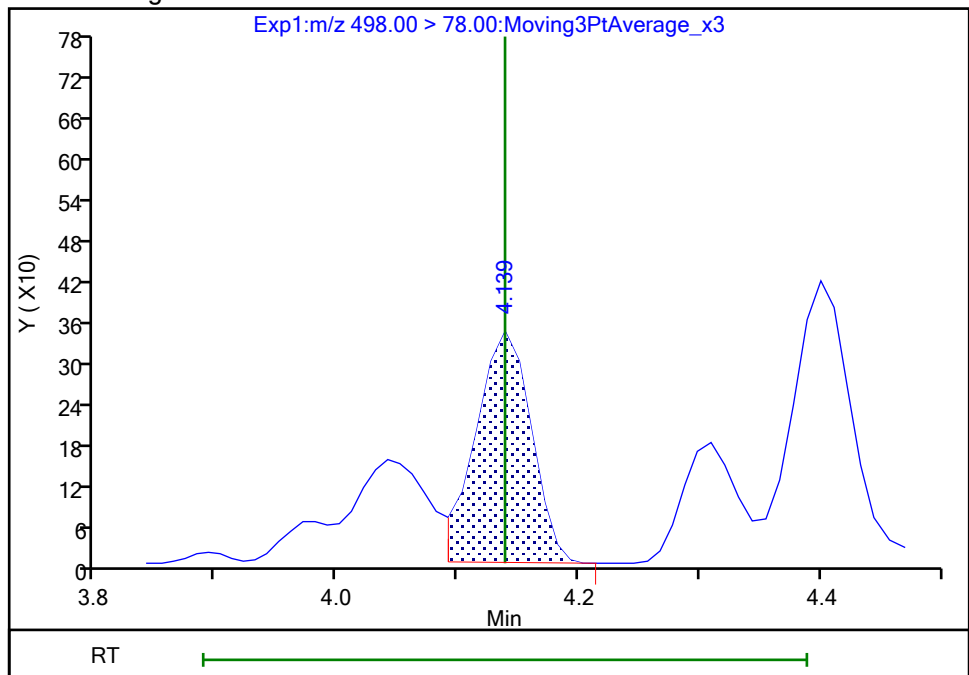
Signal: 1

Not Detected
Expected RT: 4.14

Processing Integration Results



Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 13:09:01
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 427 of 906

Eurofins TestAmerica, Burlington

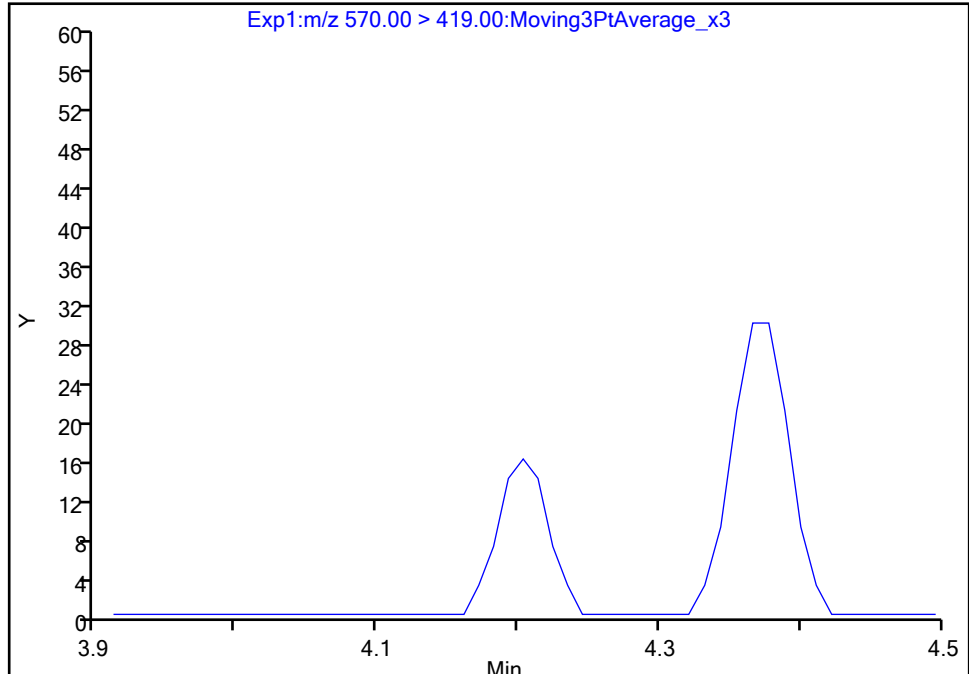
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d				
Injection Date:	27-Oct-2020 20:32:00	Instrument ID:	LC812		
Lims ID:	480-176996-C-7-A	Lab Sample ID:	200-176996-7		
Client ID:	B-54/B1266-W12				
Operator ID:	lc812tech	ALS Bottle#:	23	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

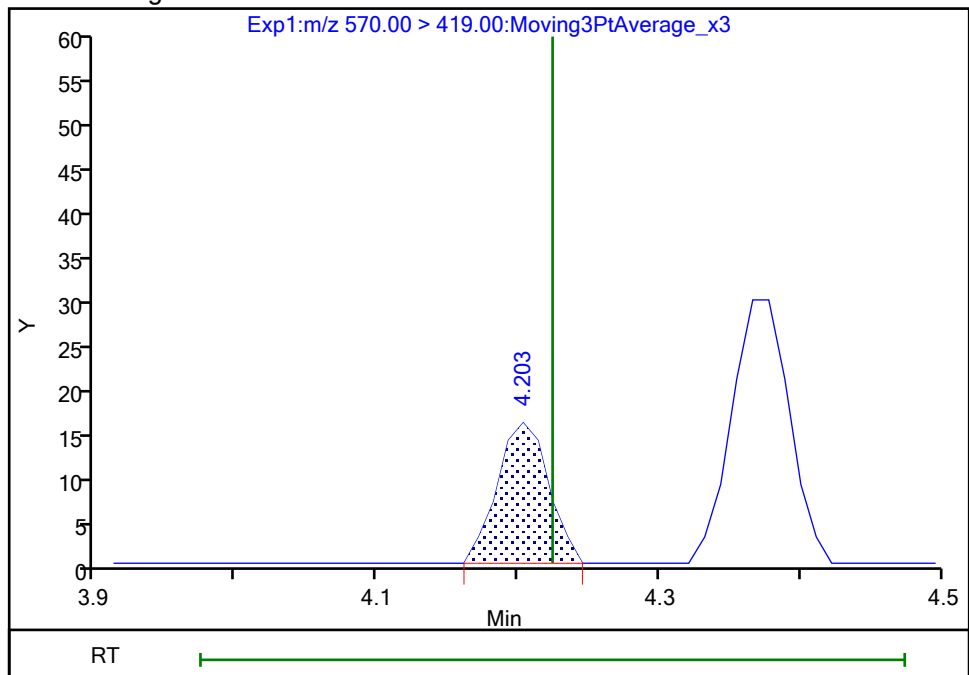
Signal: 1

Not Detected
Expected RT: 4.22

Processing Integration Results



Manual Integration Results



RT: 4.20
Area: 40
Amount: 0.003554
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:14:42

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

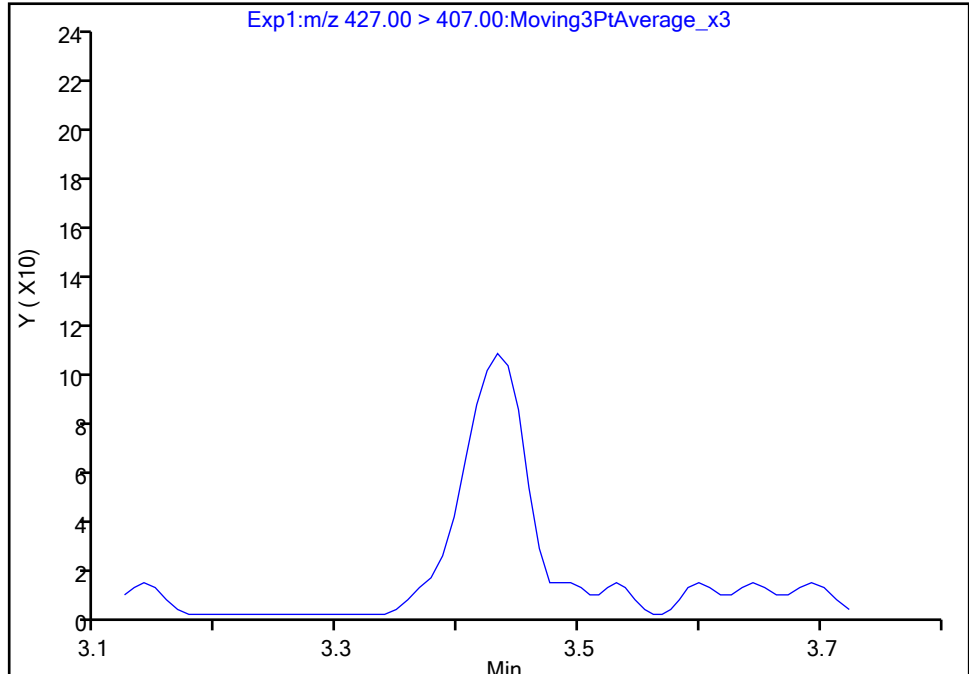
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d
Injection Date: 27-Oct-2020 20:32:00 Instrument ID: LC812
Lims ID: 480-176996-C-7-A Lab Sample ID: 200-176996-7
Client ID: B-54/B1266-W12
Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

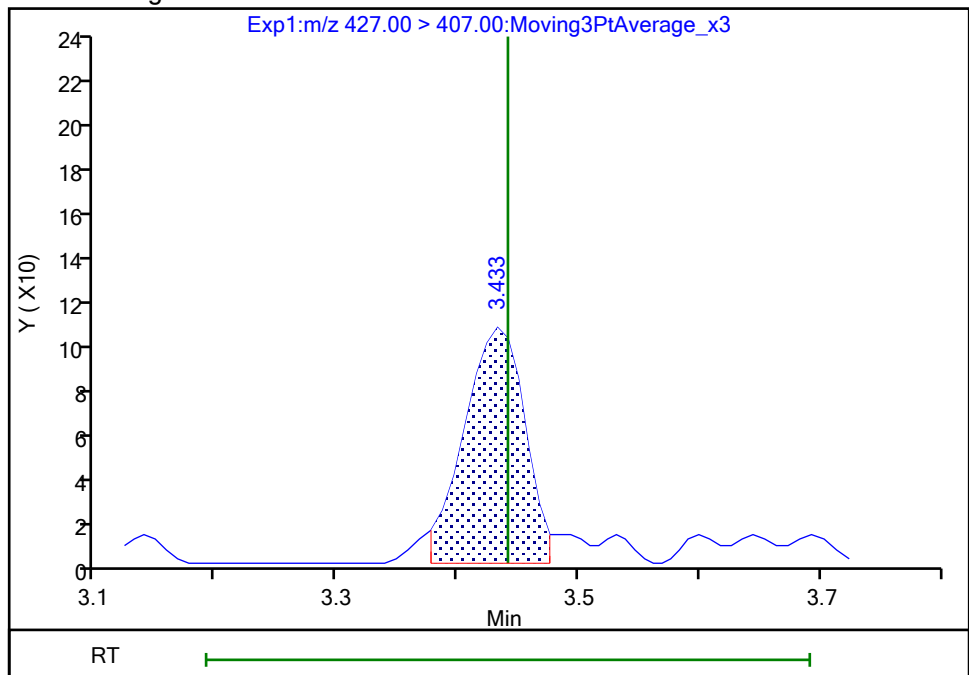
Not Detected
Expected RT: 3.44

Processing Integration Results



RT: 3.43
Area: 370
Amount: 0.007955
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:13:46

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

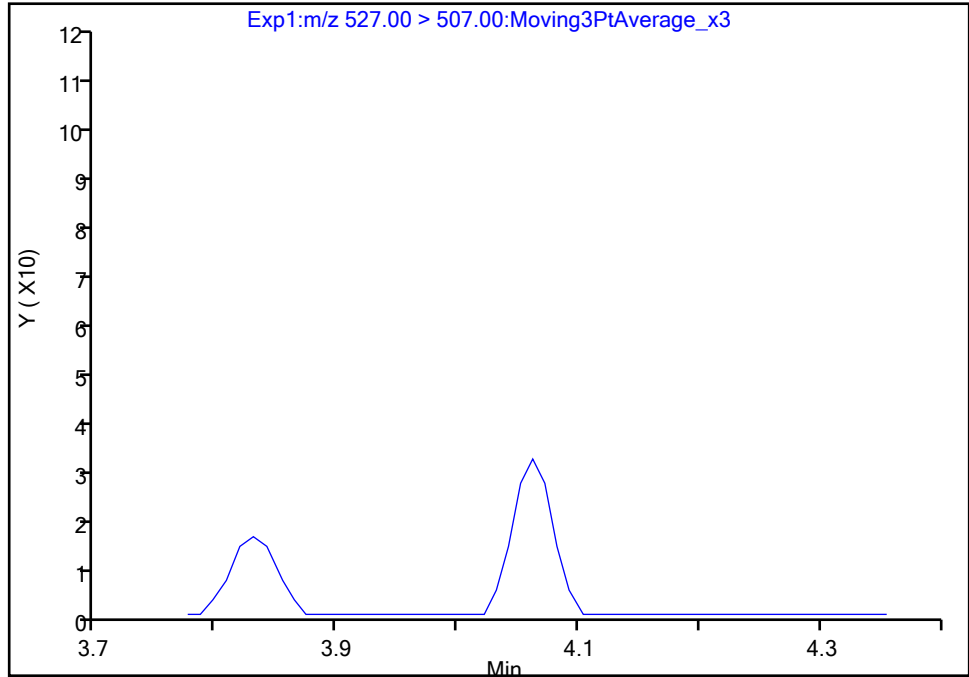
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d				
Injection Date:	27-Oct-2020 20:32:00	Instrument ID:	LC812		
Lims ID:	480-176996-C-7-A	Lab Sample ID:	200-176996-7		
Client ID:	B-54/B1266-W12				
Operator ID:	lc812tech	ALS Bottle#:	23	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

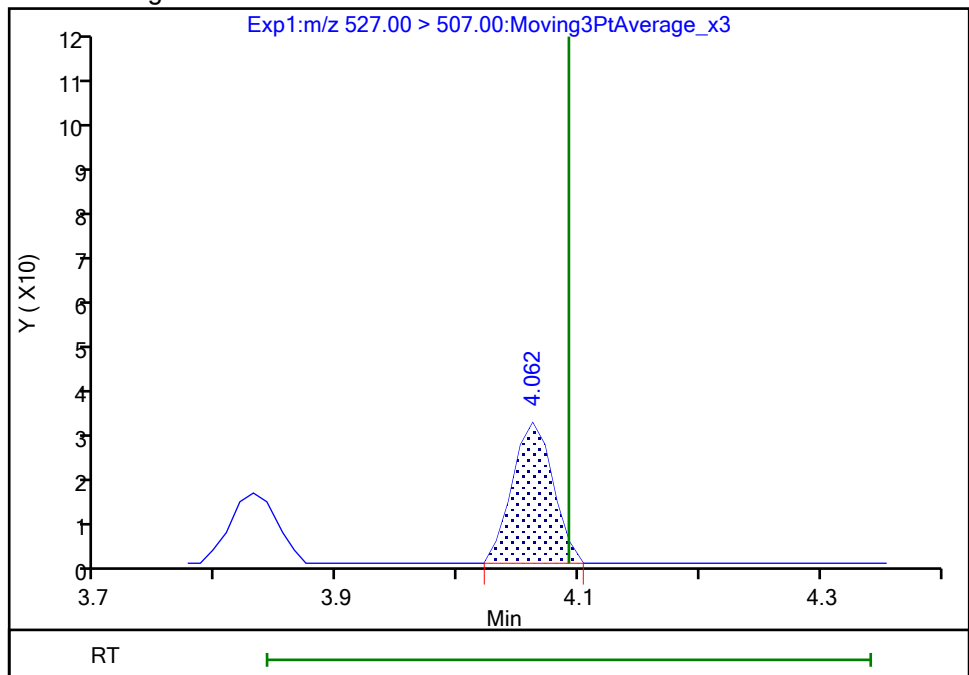
Signal: 1

Not Detected
Expected RT: 4.09

Processing Integration Results



Manual Integration Results



RT: 4.06
Area: 74
Amount: 0.004181
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:14:27

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

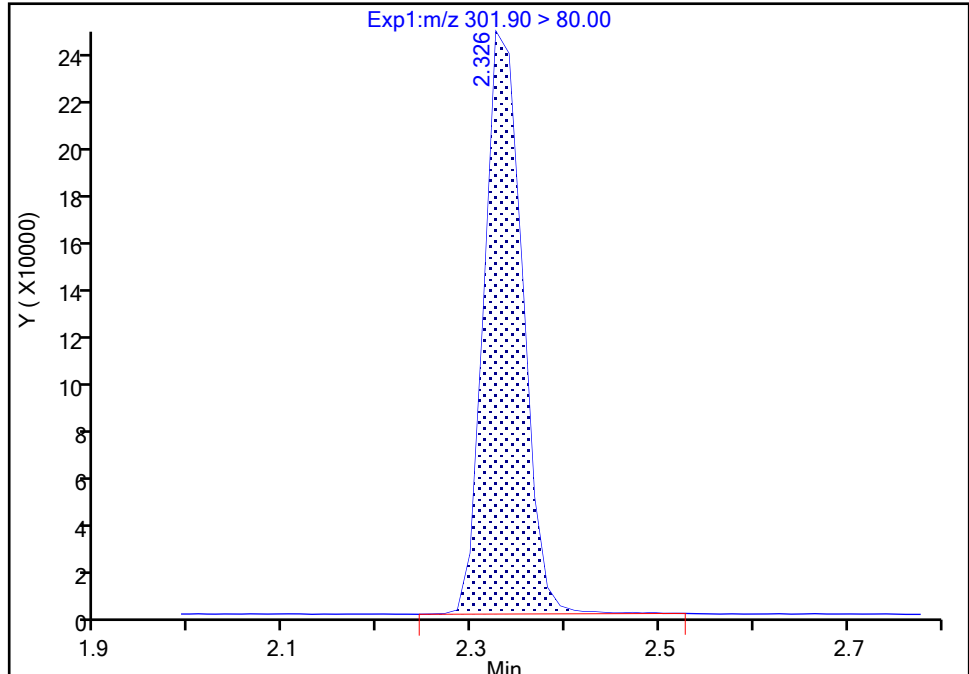
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A26.d				
Injection Date:	27-Oct-2020 20:32:00	Instrument ID:	LC812		
Lims ID:	480-176996-C-7-A	Lab Sample ID:	200-176996-7		
Client ID:	B-54/B1266-W12				
Operator ID:	lc812tech	ALS Bottle#:	23	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

D 47 13C3 PFBS, CAS: STL02337

Signal: 1

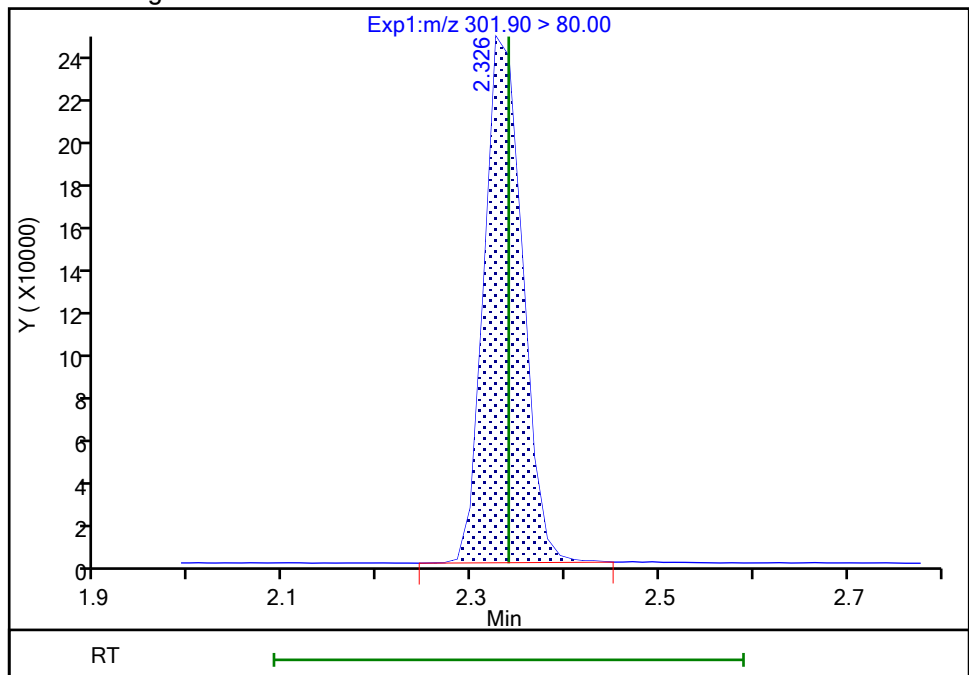
RT: 2.33
Area: 687623
Amount: 1.139670
Amount Units: ng/ml

Processing Integration Results



RT: 2.33
Area: 685417
Amount: 1.136014
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:11:33

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins TestAmerica, Burlington</u>	Job No.: <u>480-176996-1</u>
SDG No.: _____	
Client Sample ID: <u>TPW-14</u>	Lab Sample ID: <u>480-176996-8</u>
Matrix: <u>Water</u>	Lab File ID: <u>PA201027A27.d</u>
Analysis Method: <u>537 (modified)</u>	Date Collected: <u>10/21/2020 16:55</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/27/2020 09:15</u>
Sample wt/vol: <u>281.1 (mL)</u>	Date Analyzed: <u>10/27/2020 20:40</u>
Con. Extract Vol.: <u>10 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>20 (uL)</u>	GC Column: <u>C-18</u> ID: <u>4.6 (mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>160481</u>	Units: <u>ng/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.4	1.0
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		1.8	0.96
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		1.8	0.74
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.8	0.41
335-67-1	Perfluorooctanoic acid (PFOA)	ND		1.8	0.87
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.8	0.52
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.8	0.41
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.8	0.65
307-55-1	Perfluorododecanoic acid (PFDoA)	0.62	J	1.8	0.41
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.8	0.38
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.8	0.52
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.8	0.56
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	0.60
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.8	0.35
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.8	0.77
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.8	0.43
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND		1.8	0.51
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4	0.70
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4	0.83
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.4	0.64
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.8	0.59

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Client Sample ID: TPW-14 Lab Sample ID: 480-176996-8
 Matrix: Water Lab File ID: PA201027A27.d
 Analysis Method: 537 (modified) Date Collected: 10/21/2020 16:55
 Extraction Method: 3535 Date Extracted: 10/27/2020 09:15
 Sample wt/vol: 281.1 (mL) Date Analyzed: 10/27/2020 20:40
 Con. Extract Vol.: 10 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: C-18 ID: 4.6 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 160481 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	90		50-150
STL01892	13C4 PFHpA	89		50-150
STL00990	13C4 PFOA	82		50-150
STL00991	13C4 PFOS	49	*5	50-150
STL00995	13C5 PFNA	61		50-150
STL00992	13C4 PFBA	87		25-150
STL00993	13C2 PFHxA	97		50-150
STL00996	13C2 PFDA	34	*5	50-150
STL00997	13C2 PFUnA	25	*5	50-150
STL00998	13C2 PFDoA	19	*5	50-150
STL01056	13C8 FOSA	55		25-150
STL01893	13C5 PFPeA	95		25-150
STL02116	13C2 PFTeDA	21	*5	50-150
STL02118	d3-NMeFOSAA	29	*5	50-150
STL02117	d5-NEtFOSAA	21	*5	50-150
STL02279	M2-6:2 FTS	84		25-150
STL02280	M2-8:2 FTS	35		25-150
STL02337	13C3 PFBS	89		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d
 Lims ID: 480-176996-C-8-A
 Client ID: TPW-14
 Sample Type: Client
 Inject. Date: 27-Oct-2020 20:40:17 ALS Bottle#: 24 Worklist Smp#: 27
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: 480-176996-C-8-A
 Misc. Info.: 200-0043412-027 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Method: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 28-Oct-2020 13:19:45 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1652

First Level Reviewer: khanphomeea

Date: 28-Oct-2020 10:19:09

Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.981	1.981	0.0	0.576	775188	1.09		87.1	12076	
2 Perfluorobutanoic acid										M
212.90 > 169.00	1.981	1.990	-0.009	1.000	8703	0.0150			2.8	M
D 3 13C5 PFPeA										
267.90 > 223.00	2.312	2.326	-0.014	0.672	607658	1.19		95.3	2599	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.299	2.326	-0.027	0.994	3126	0.006089			0.1	M
D 47 13C3 PFBS										
301.90 > 80.00	2.339	2.339	0.0	0.680	645283	1.04		89.3	81390	
5 Perfluorobutanesulfonic acid										RM
298.90 > 80.00	2.339	2.353	-0.014	1.000	1069	0.001933	Target=2.07		0.9	RM
298.90 > 99.00	2.326	2.353	-0.027	0.994	1095		0.98(1.04-3.11)		0.6	M
D 7 13C2 PFHxA										
315.00 > 270.00	2.691	2.703	-0.012	0.782	635437	1.21		96.8	5527	
6 Perfluorohexanoic acid										RM
313.00 > 269.00	2.691	2.703	-0.012	1.000	1565	0.003057	Target=12.44		0.5	RM
313.00 > 119.00	2.729	2.703	0.026	1.014	452		3.46(6.22-18.66)		1.1	M
D 11 18O2 PFHxS										
403.00 > 84.00	3.073	3.084	-0.011	0.893	472162	1.06		89.6	3193	
8 Perfluorohexanesulfonic acid										RM
399.00 > 80.00	3.073	3.084	-0.011	1.000	2505	0.005681	Target=4.60		5.1	RM
399.00 > 99.00	3.084	3.084	0.0	1.004	211		11.87(2.30-6.91)		0.5	M
D 9 13C4 PFHpA										
367.00 > 322.00	3.073	3.084	-0.011	0.893	531533	1.11		89.0	2583	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.433	3.441	-0.008	0.997	59322	1.00		83.8	364	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 1H,1H,2H,2H-perfluorooctanesulfo										M
427.00 > 407.00	3.433	3.441	-0.008	1.000	330	0.008277		17.0		M
D 14 13C4 PFOA										
417.00 > 372.00	3.441	3.450	-0.009	1.000	503257	1.03		82.3	3075	
* 62 13C2 PFOA										
415.00 > 370.00	3.441	3.450	-0.009		620935	1.25		3335		
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.441	3.458	-0.017	1.000	3220	0.007747	Target=2.29	1.7		M
413.00 > 169.00	3.441	3.458	-0.017	1.000	1090		2.95(1.14-3.43)	4.8		M
D 18 13C4 PFOS										
503.00 > 80.00	3.754	3.765	-0.011	1.091	215549	0.5911		49.5	1398	
17 Perfluorooctanesulfonic acid										RM
499.00 > 80.00	3.765	3.765	0.0	1.003	1085	0.005535	Target=7.10	1.0		RM
499.00 > 99.00	3.607	3.765	-0.158	0.961	431		2.52(3.55-10.64)	2.4		M
D 19 13C5 PFNA										
468.00 > 423.00	3.775	3.786	-0.011	1.097	313235	0.7601		60.8	3606	
D 23 13C2 PFDA										
515.00 > 470.00	4.071	4.082	-0.011	1.183	167627	0.4242		33.9	3914	
24 Perfluorodecanoic acid										RM
513.00 > 469.00	4.071	4.082	-0.011	1.000	395	0.002977	Target=6.81	1.3		RM
513.00 > 169.00	4.061	4.082	-0.021	0.998	132		2.99(3.41-10.22)	2.1		M
D 26 M2-8:2 FTS										
529.00 > 81.00	4.081	4.092	-0.011	1.186	29696	0.4232		35.3	110	
25 1H,1H,2H,2H-perfluorodecanesulfo										M
527.00 > 507.00	4.091	4.092	-0.001	1.002	41	0.004177		1.8		M
D 21 13C8 FOSA										
506.00 > 78.00	4.138	4.139	-0.001	1.203	438300	0.6882		55.1	3710	
22 Perfluorooctanesulfonamide										M
498.00 > 78.00	4.126	4.139	-0.013	0.997	618	0.001885		2.9		M
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.214	4.214	0.0	1.225	8056	0.3580		28.6	305	
28 N-methylperfluorooctanesulfonami										M
570.00 > 419.00	4.257	4.224	0.033	1.010	40	0.006577		1.8		M
D 30 13C2 PFUnA										
565.00 > 520.00	4.333	4.343	-0.010	1.259	94039	0.3152		25.2	2165	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.344	4.343	0.001	1.262	6294	0.2602		20.8	123	
D 36 13C2 PFDaA										
615.00 > 570.00	4.561	4.561	0.0	1.326	76029	0.2411		19.3	1246	
37 Perfluorododecanoic acid										M
613.00 > 569.00	4.561	4.561	0.0	1.000	1031	0.0174	Target=5.16	1.7		M
613.00 > 169.00	4.586	4.561	0.025	1.005	148		6.97(2.58-7.75)	2.4		M
D 43 13C2 PFTeDA										
715.00 > 670.00	4.969	4.969	0.0	1.444	59744	0.2660		21.3	1211	
42 Perfluorotetradecanoic acid										M
713.00 > 169.00	4.969	4.969	0.0	1.000	46	0.004202	Target=1.06	1.6		M
713.00 > 219.00	4.969	4.969	0.0	1.000	42		1.10(0.53-1.59)	3.8		M

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d

Injection Date: 27-Oct-2020 20:40:17

Instrument ID: LC812

Lims ID: 480-176996-C-8-A

Lab Sample ID: 200-176996-8

Client ID: TPW-14

Operator ID: lc812tech

ALS Bottle#: 24

Worklist Smp#: 27

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

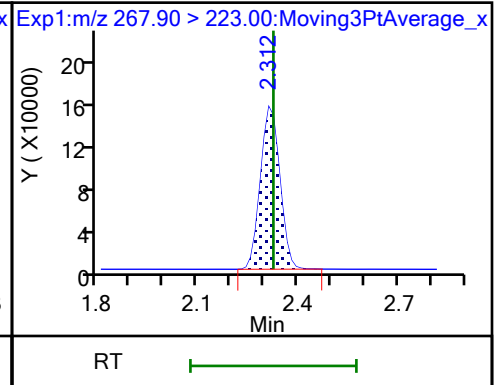
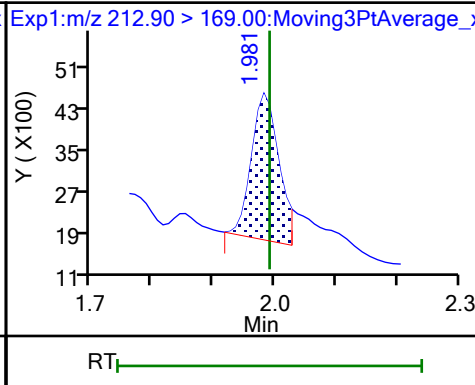
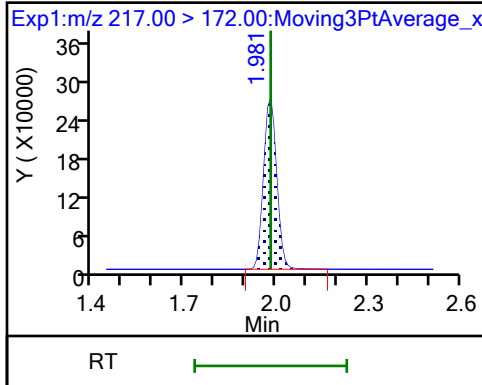
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid (M)

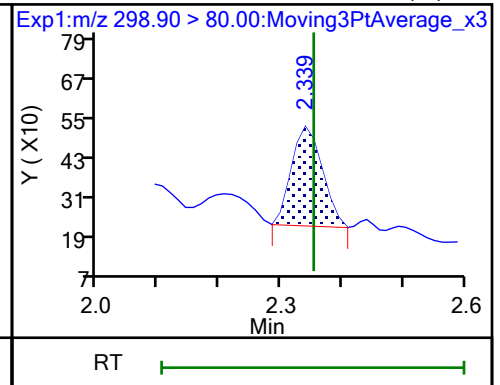
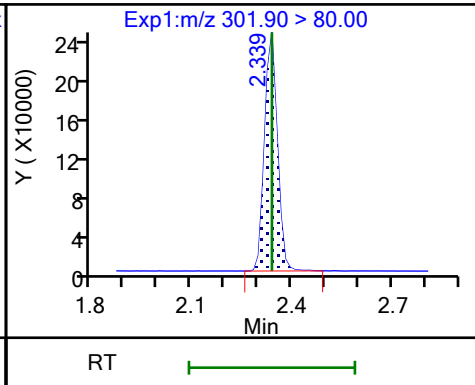
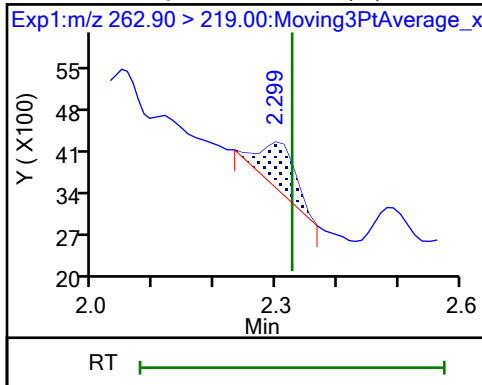
D 3 13C5 PFPeA



4 Perfluoropentanoic acid (M)

D 47 13C3 PFBS

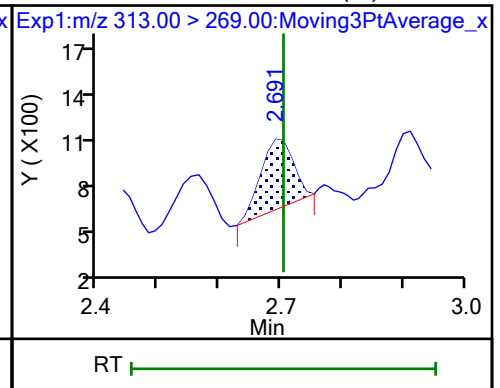
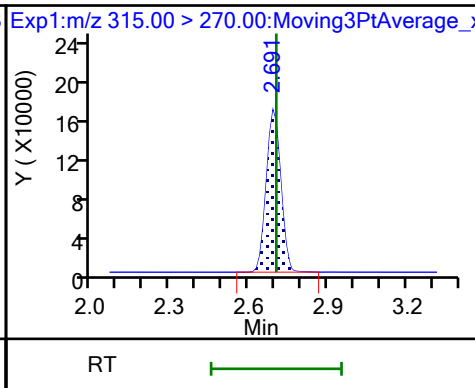
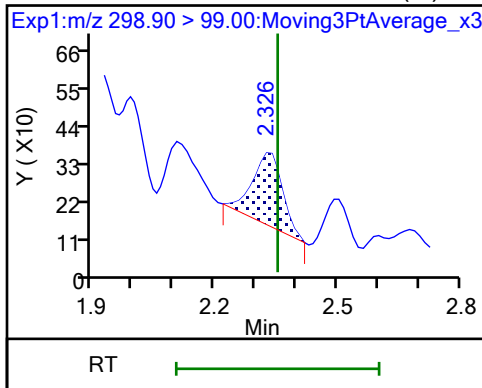
5 Perfluorobutanesulfonic acid (M)



5 Perfluorobutanesulfonic acid (M)

D 7 13C2 PFHxA

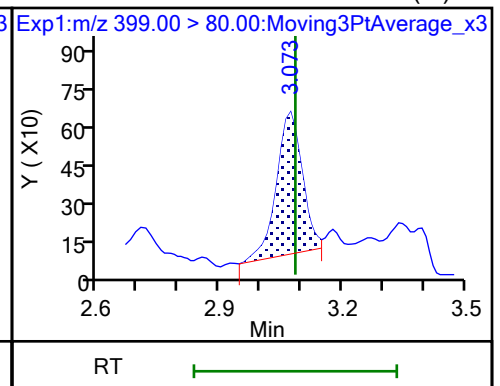
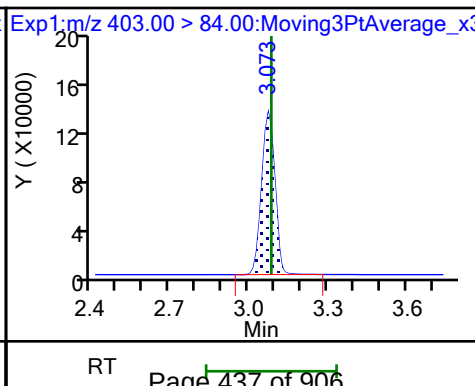
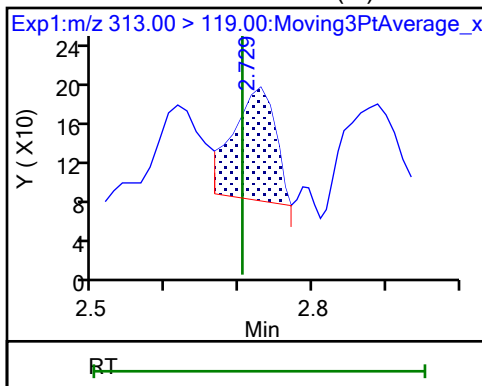
6 Perfluorohexanoic acid (M)

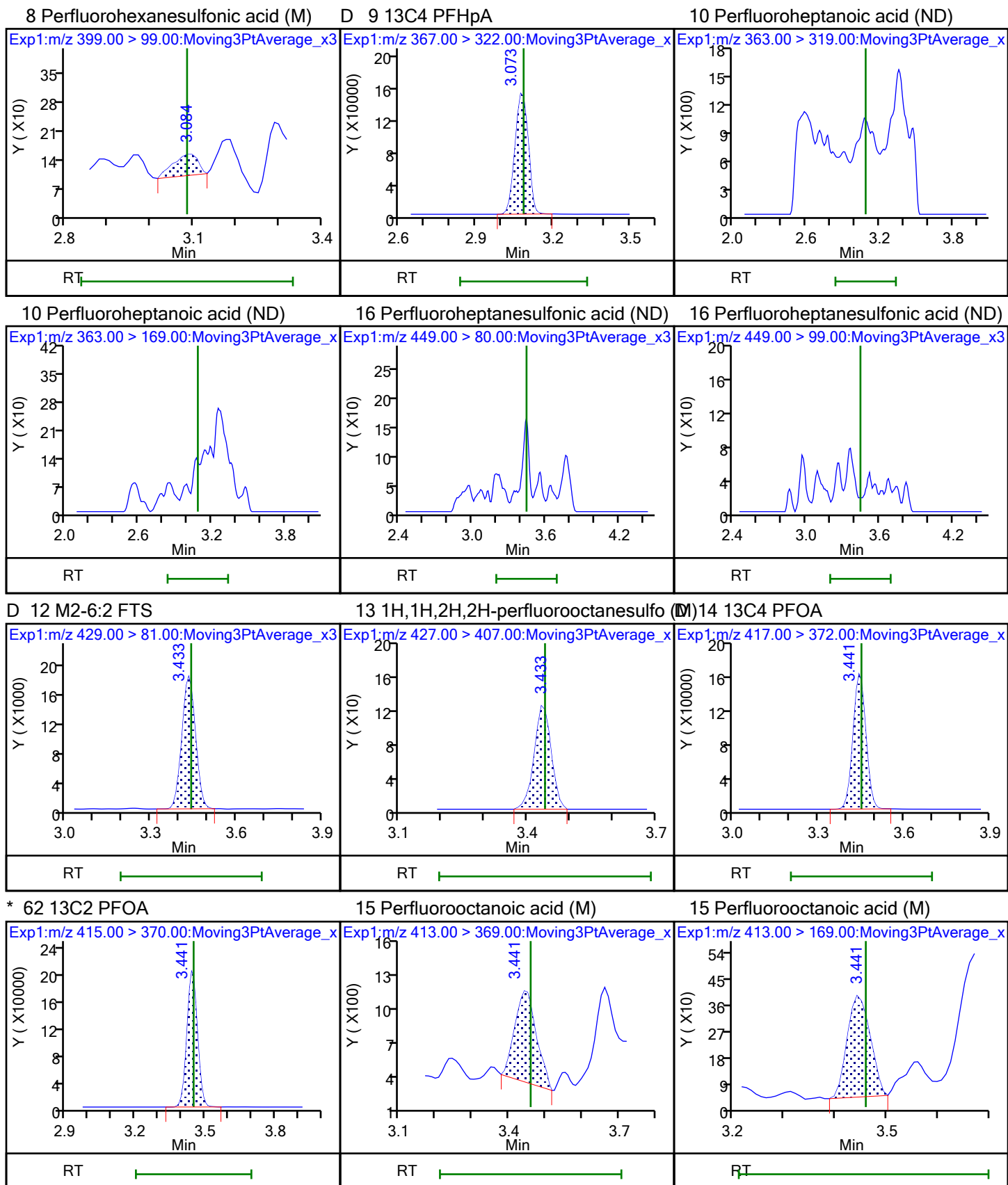


6 Perfluorohexanoic acid (M)

D 11 18O2 PFHxS

8 Perfluorohexanesulfonic acid (M)

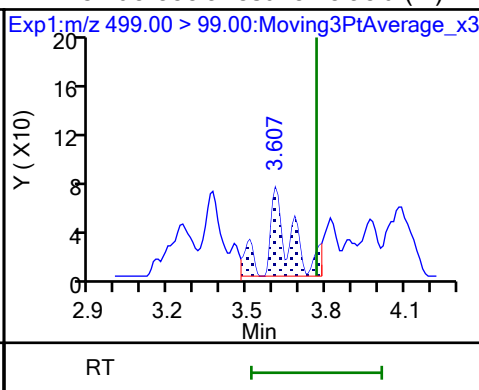
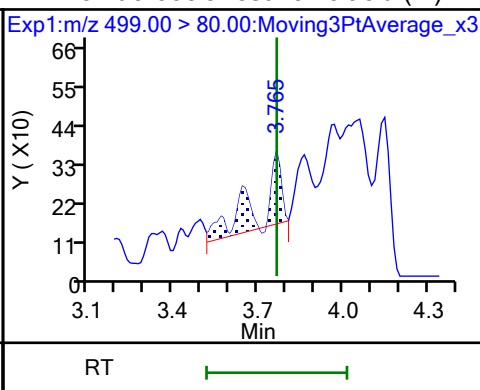
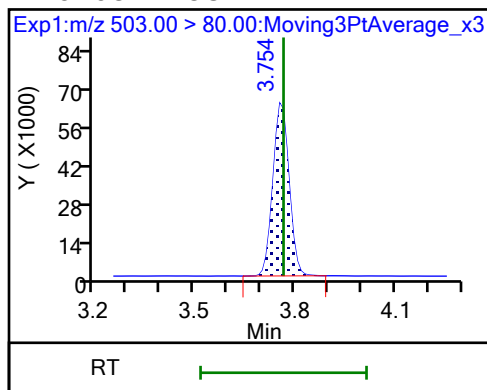




D 18 13C4 PFOS

17 Perfluorooctanesulfonic acid (M)

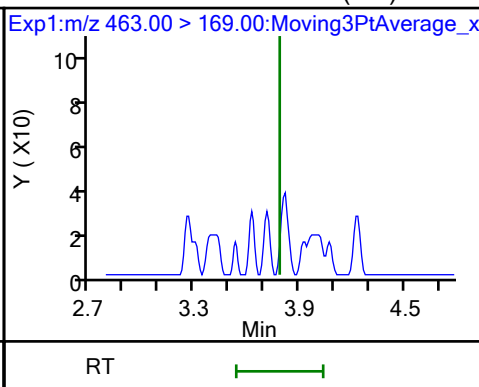
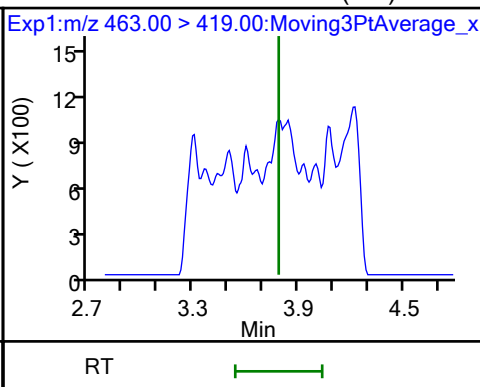
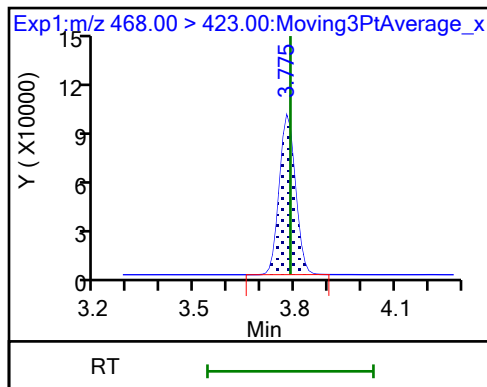
17 Perfluorooctanesulfonic acid (M)



D 19 13C5 PFNA

20 Perfluorononanoic acid (ND)

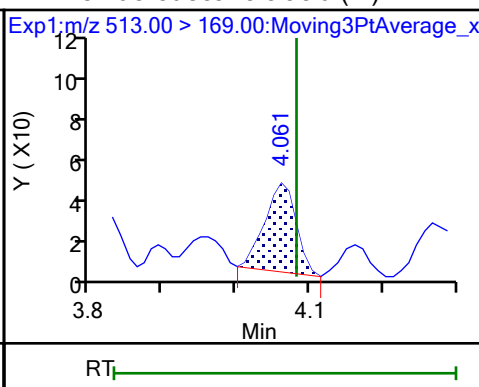
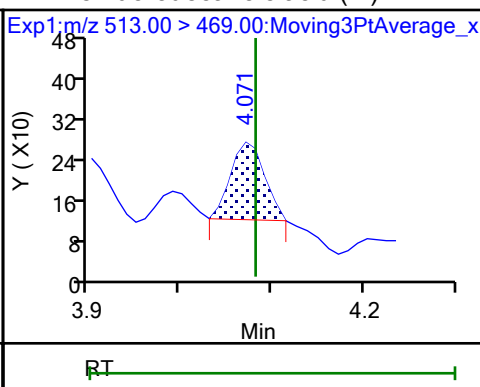
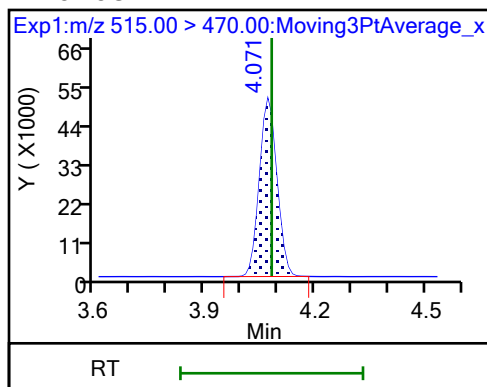
20 Perfluorononanoic acid (ND)



D 23 13C2 PFDA

24 Perfluorodecanoic acid (M)

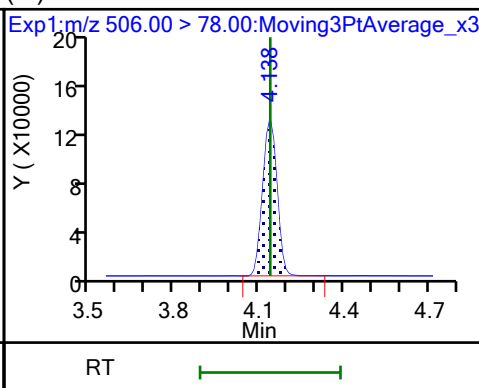
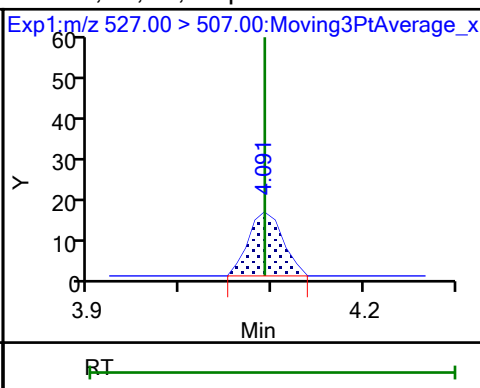
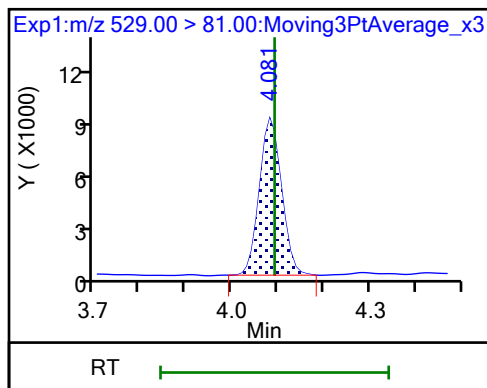
24 Perfluorodecanoic acid (M)

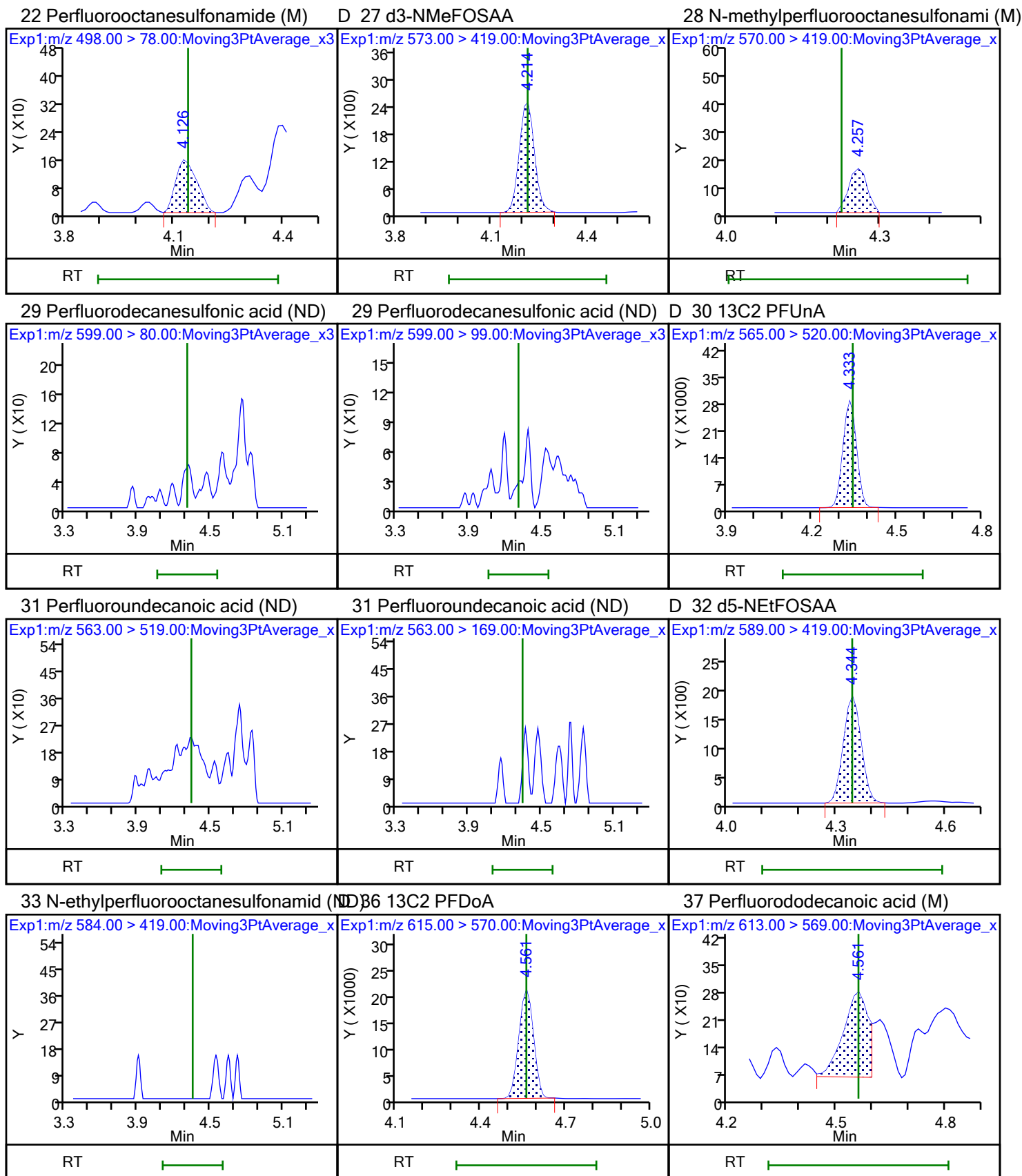


D 26 M2-8:2 FTS

25 1H,1H,2H,2H-perfluorodecanesulfonic acid (M)

25 1H,1H,2H,2H-perfluorodecanesulfonic acid (M)

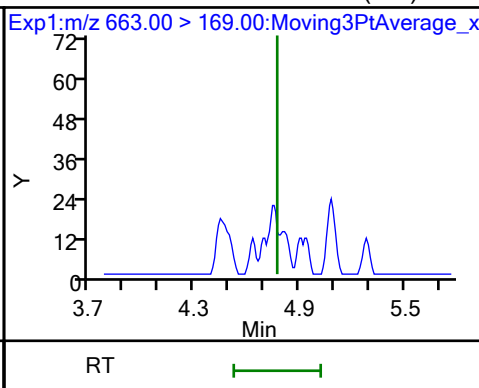
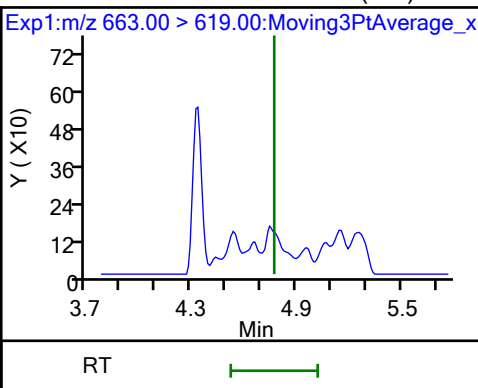
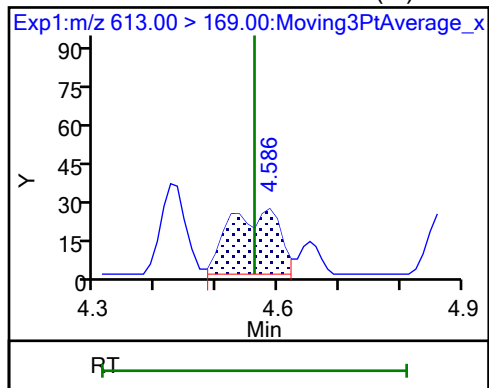




37 Perfluorododecanoic acid (M)

41 Perfluorotridecanoic acid (ND)

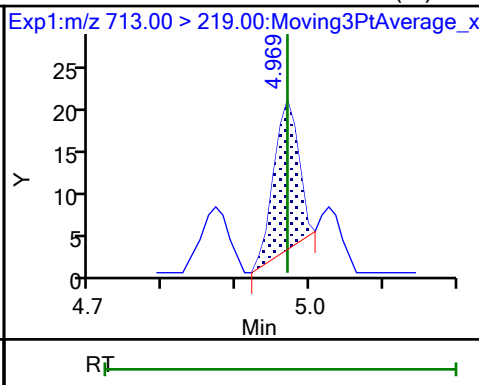
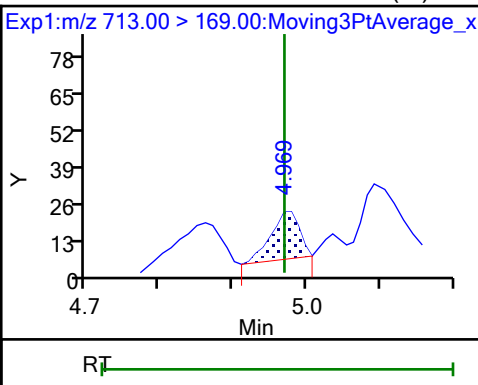
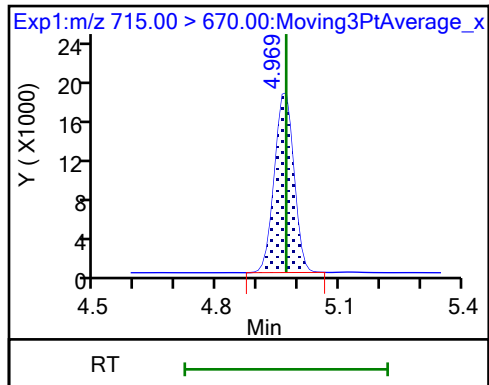
41 Perfluorotridecanoic acid (ND)



D 43 13C2 PFTeDA

42 Perfluorotetradecanoic acid (M)

42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

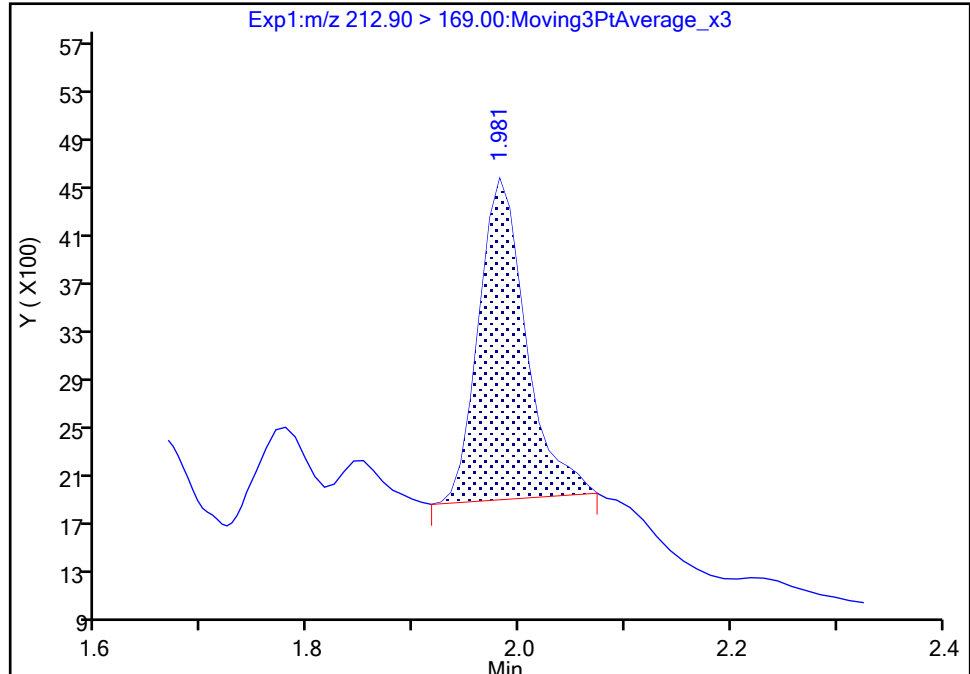
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d				
Injection Date:	27-Oct-2020 20:40:17	Instrument ID:	LC812		
Lims ID:	480-176996-C-8-A	Lab Sample ID:	200-176996-8		
Client ID:	TPW-14				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	27
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

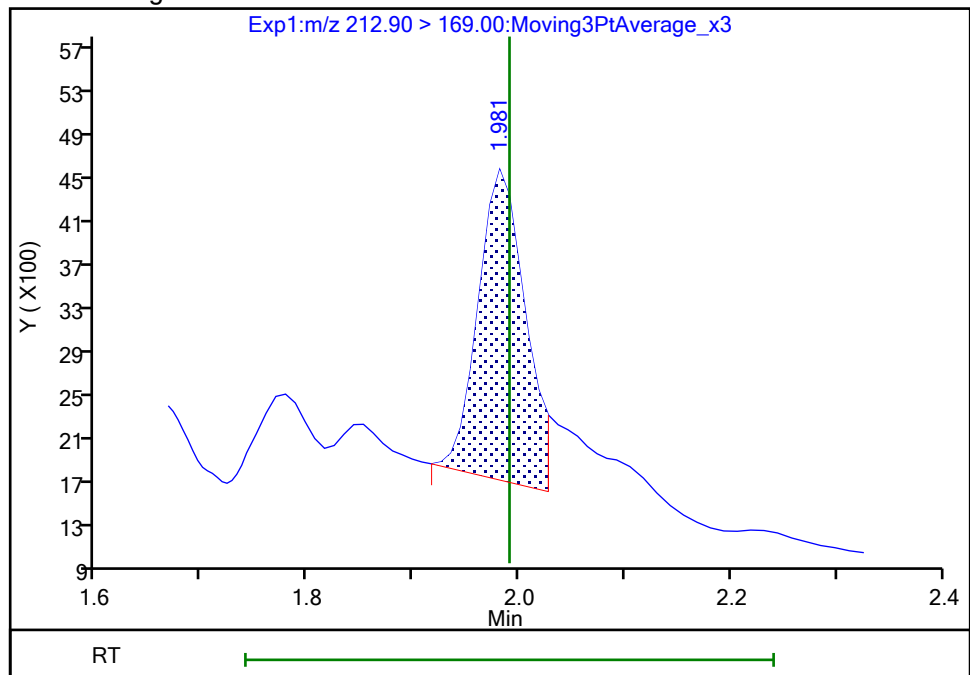
RT: 1.98
Area: 8177
Amount: 0.014106
Amount Units: ng/ml

Processing Integration Results



RT: 1.98
Area: 8703
Amount: 0.015013
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 13:09:55

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

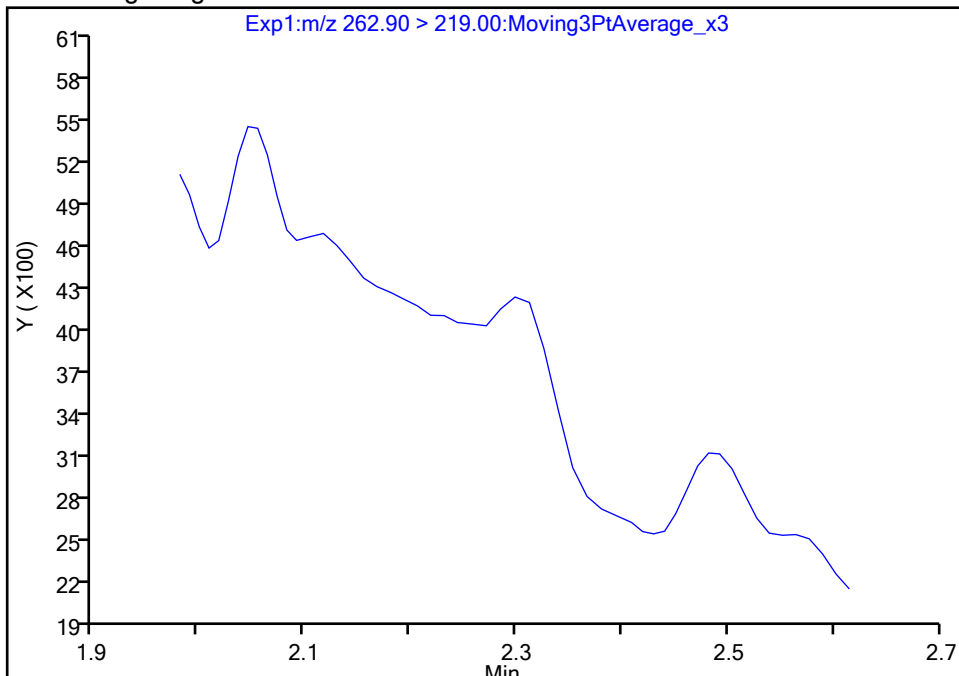
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d
Injection Date: 27-Oct-2020 20:40:17 Instrument ID: LC812
Lims ID: 480-176996-C-8-A Lab Sample ID: 200-176996-8
Client ID: TPW-14
Operator ID: lc812tech ALS Bottle#: 24 Worklist Smp#: 27
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

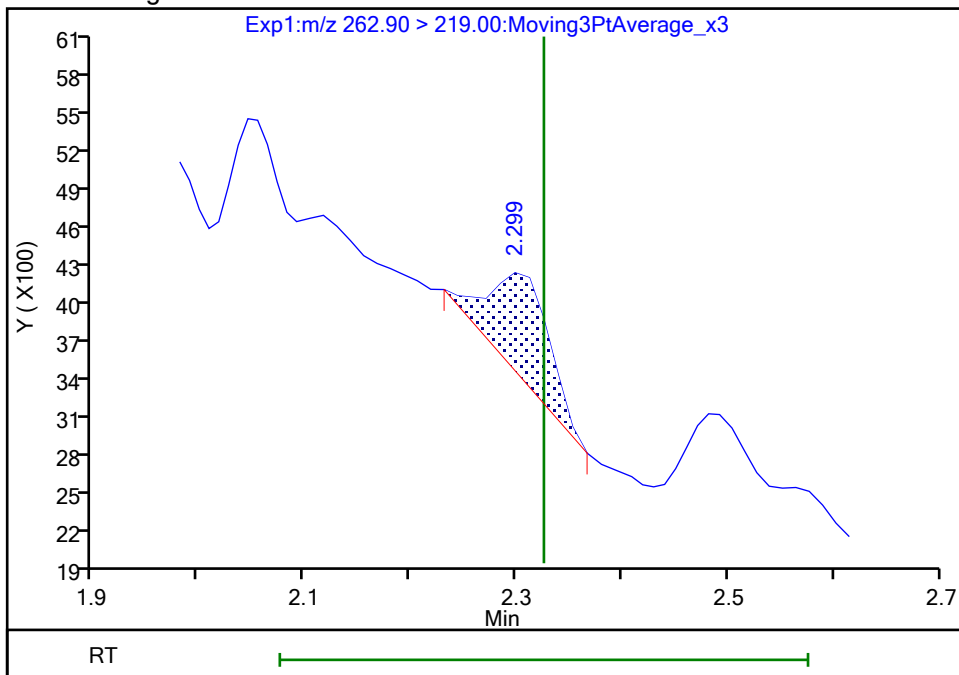
Not Detected
Expected RT: 2.33

Processing Integration Results



RT: 2.30
Area: 3126
Amount: 0.006089
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 13:10:07

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

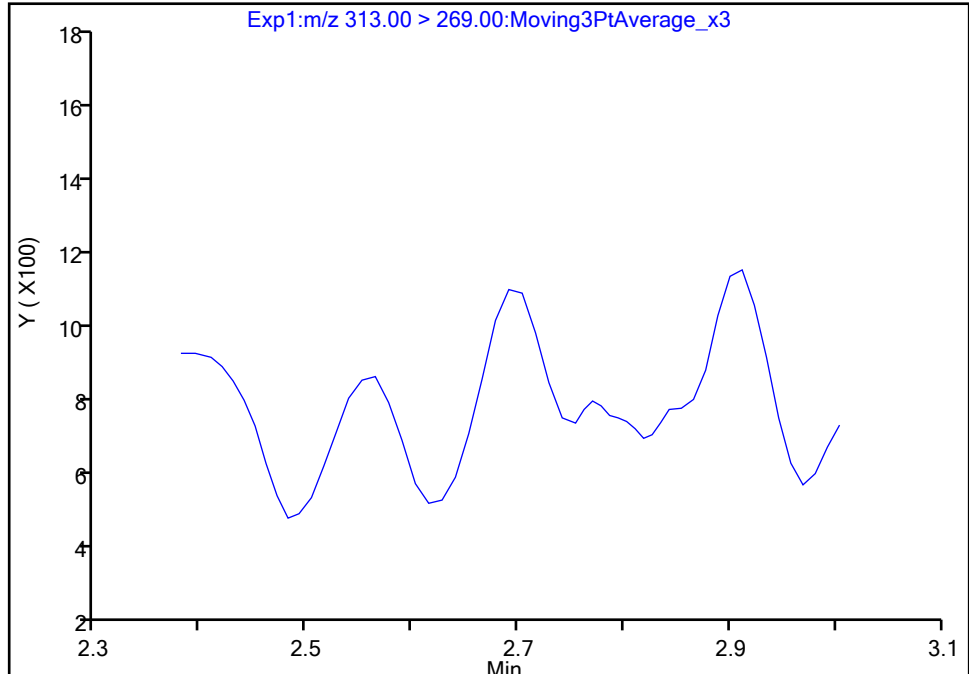
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d				
Injection Date:	27-Oct-2020 20:40:17	Instrument ID:	LC812		
Lims ID:	480-176996-C-8-A	Lab Sample ID:	200-176996-8		
Client ID:	TPW-14				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	27
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

6 Perfluorohexanoic acid, CAS: 307-24-4

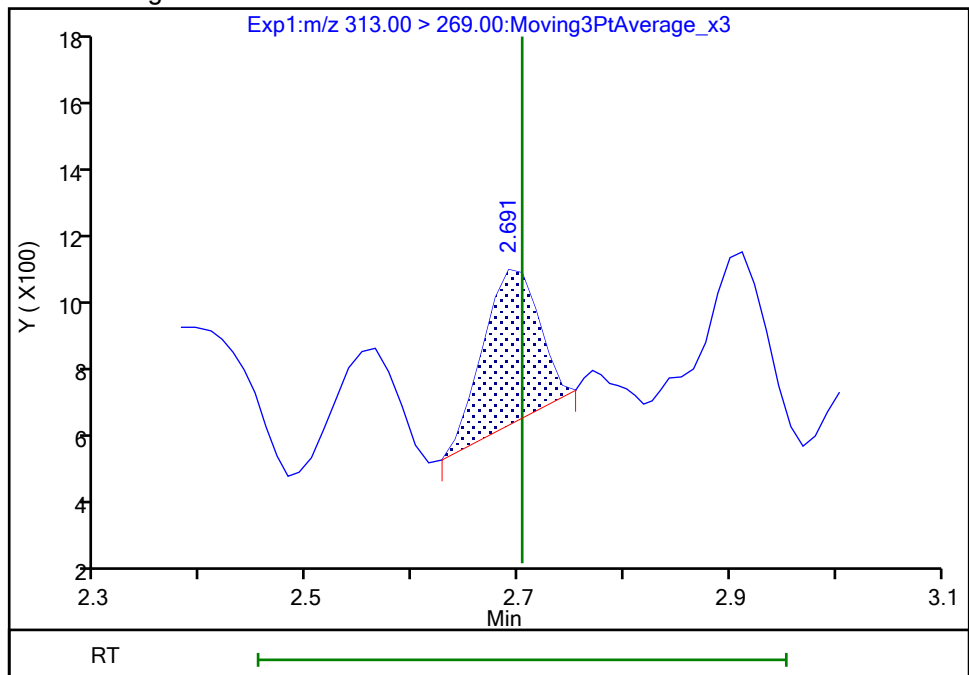
Signal: 1

Not Detected
Expected RT: 2.70

Processing Integration Results



Manual Integration Results



RT: 2.69
Area: 1565
Amount: 0.003057
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:16:19

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

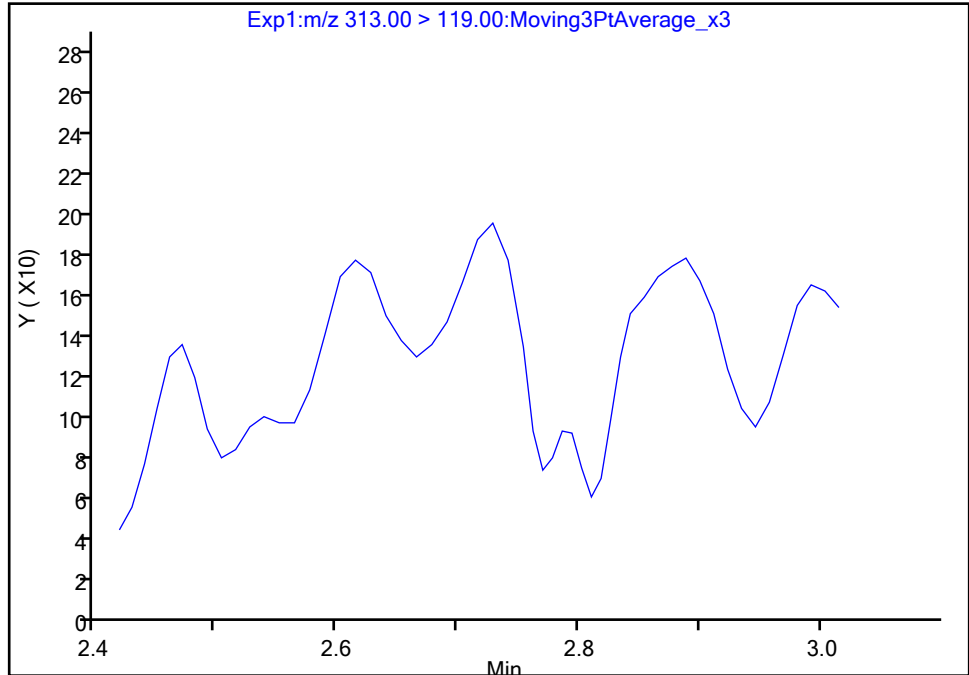
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d
Injection Date: 27-Oct-2020 20:40:17 Instrument ID: LC812
Lims ID: 480-176996-C-8-A Lab Sample ID: 200-176996-8
Client ID: TPW-14
Operator ID: lc812tech ALS Bottle#: 24 Worklist Smp#: 27
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

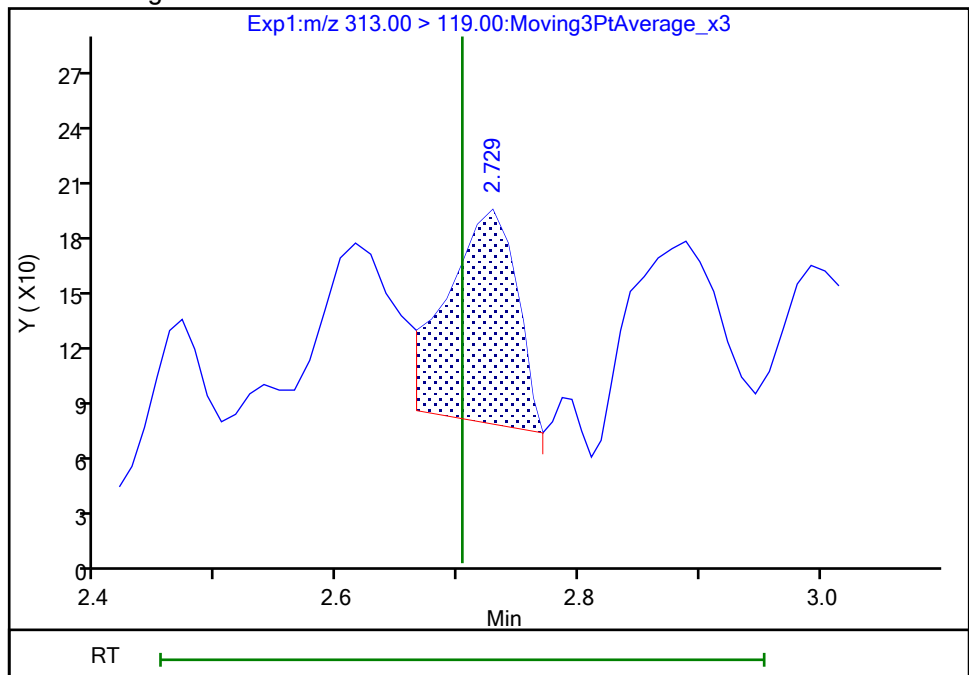
Not Detected
Expected RT: 2.70

Processing Integration Results



RT: 2.73
Area: 452
Amount: 0.003057
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:16:29

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

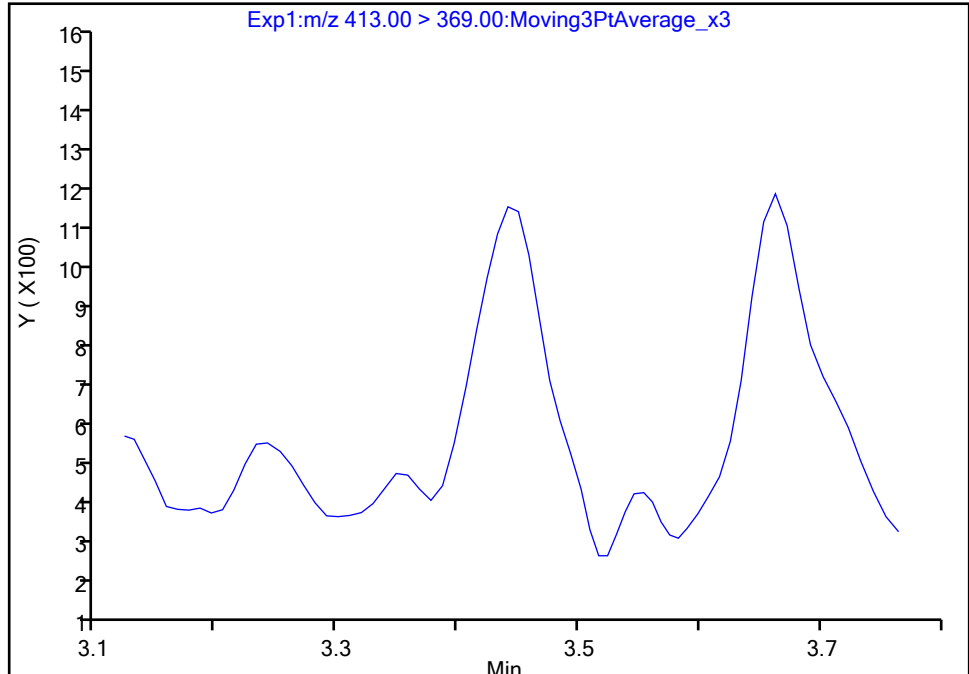
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d				
Injection Date:	27-Oct-2020 20:40:17	Instrument ID:	LC812		
Lims ID:	480-176996-C-8-A	Lab Sample ID:	200-176996-8		
Client ID:	TPW-14				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	27
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

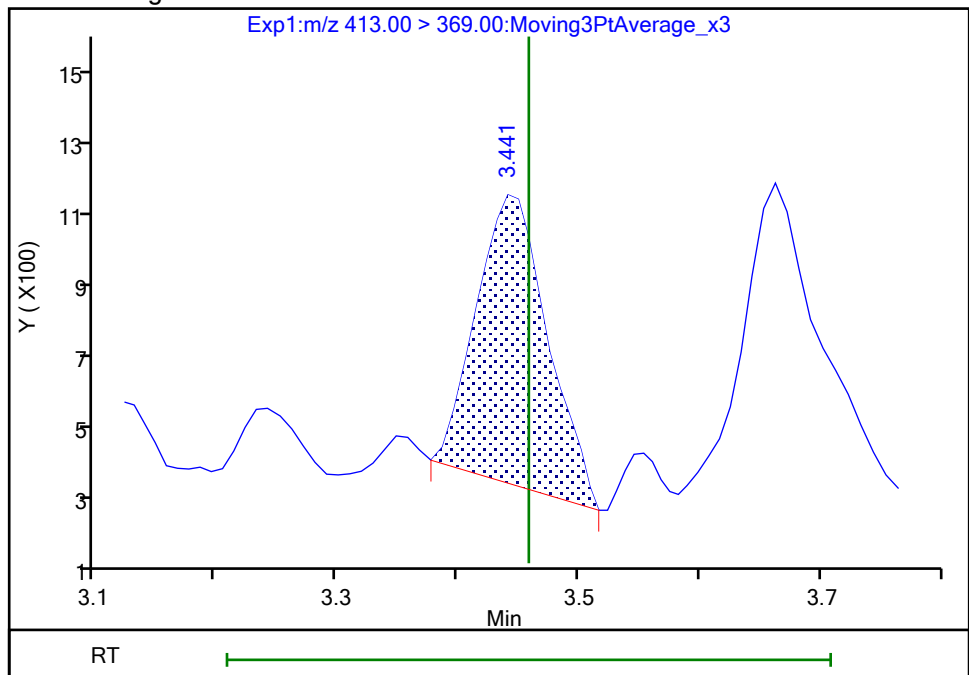
Signal: 1

Not Detected
Expected RT: 3.46

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:17:09

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

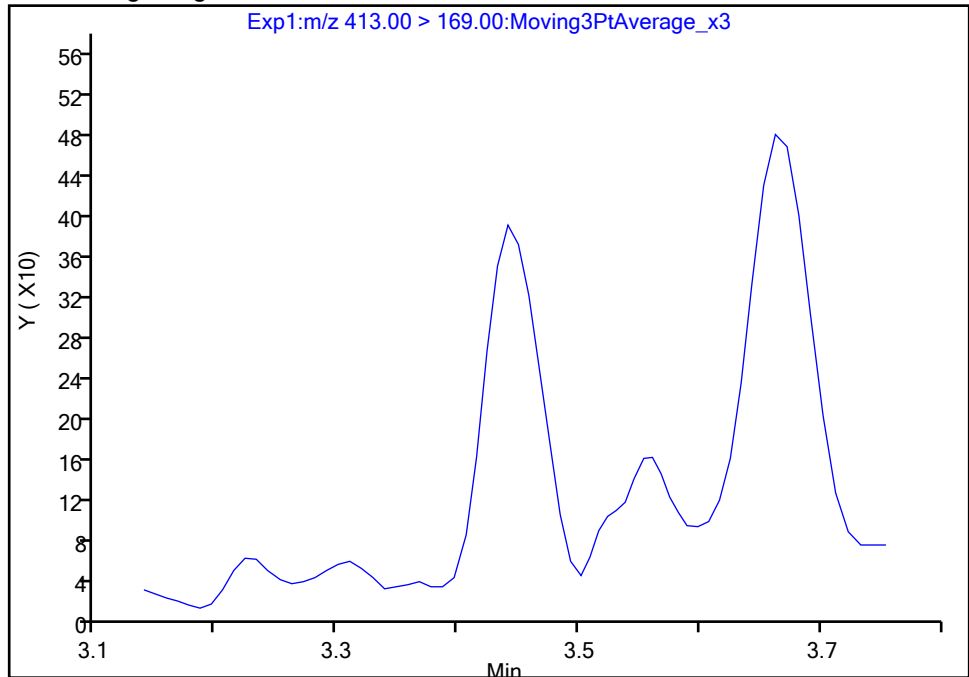
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d
Injection Date: 27-Oct-2020 20:40:17 Instrument ID: LC812
Lims ID: 480-176996-C-8-A Lab Sample ID: 200-176996-8
Client ID: TPW-14
Operator ID: lc812tech ALS Bottle#: 24 Worklist Smp#: 27
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

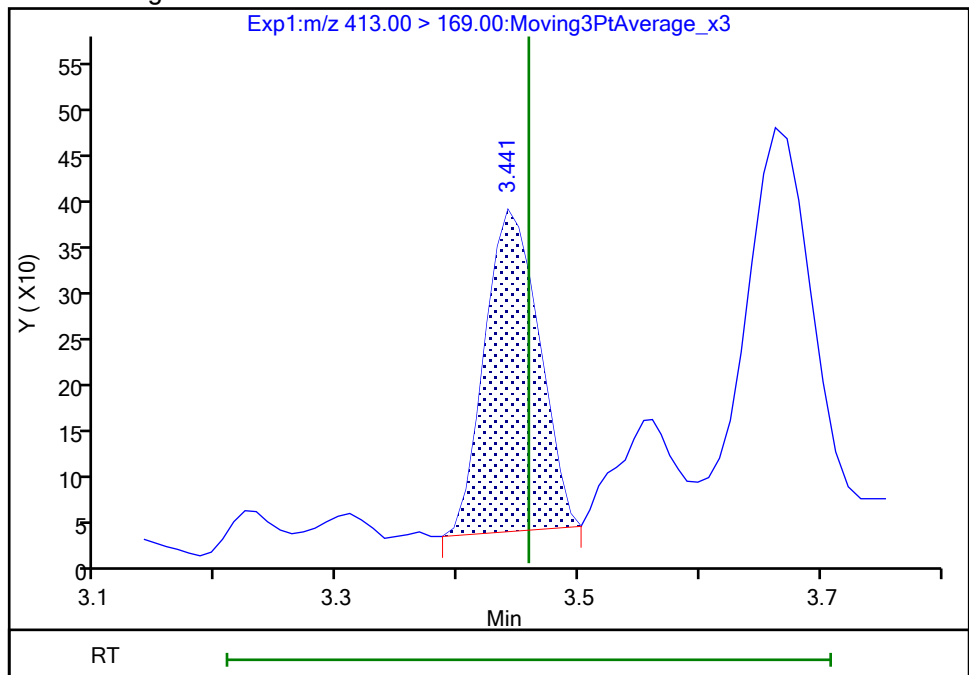
Not Detected
Expected RT: 3.46

Processing Integration Results



Manual Integration Results

RT: 3.44
Area: 1090
Amount: 0.007747
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 10:17:12

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

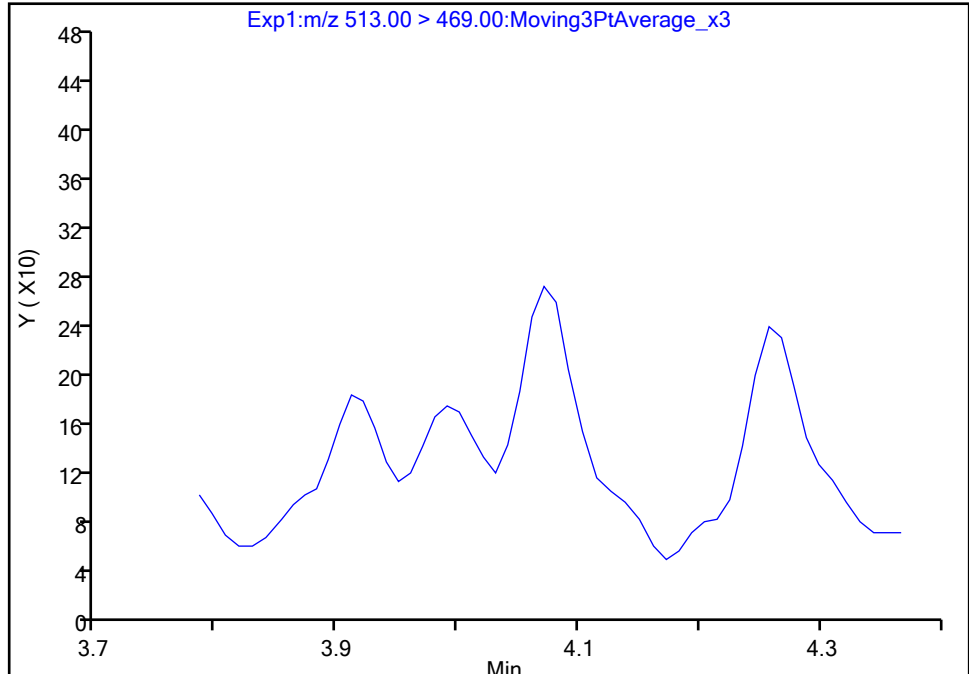
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d				
Injection Date:	27-Oct-2020 20:40:17	Instrument ID:	LC812		
Lims ID:	480-176996-C-8-A	Lab Sample ID:	200-176996-8		
Client ID:	TPW-14				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	27
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

24 Perfluorodecanoic acid, CAS: 335-76-2

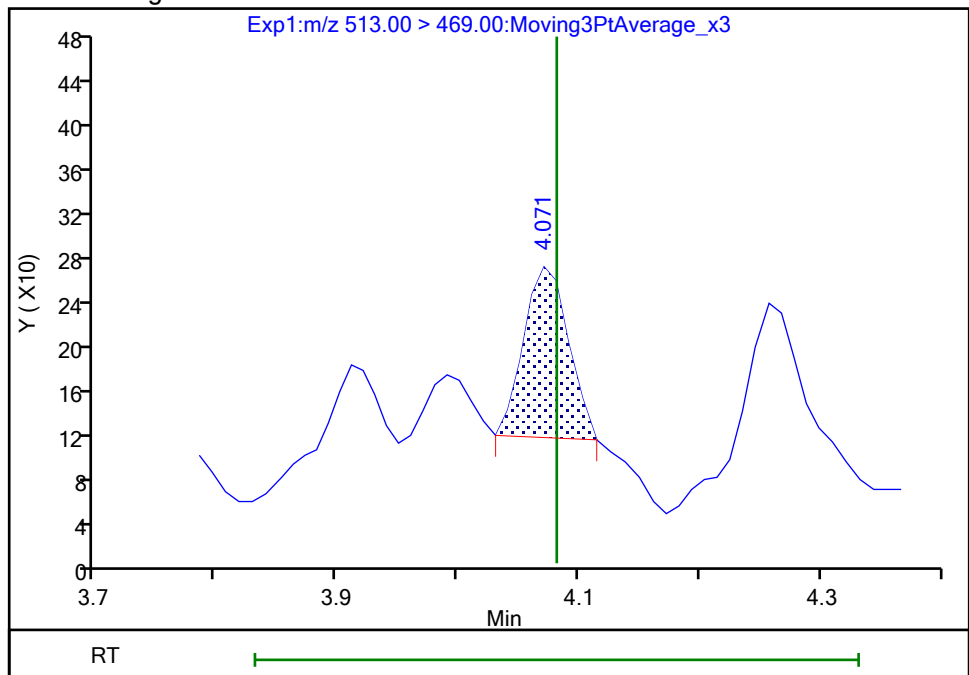
Signal: 1

Not Detected
Expected RT: 4.08

Processing Integration Results



Manual Integration Results

RT: 4.07
Area: 395
Amount: 0.002977
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:18:26

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

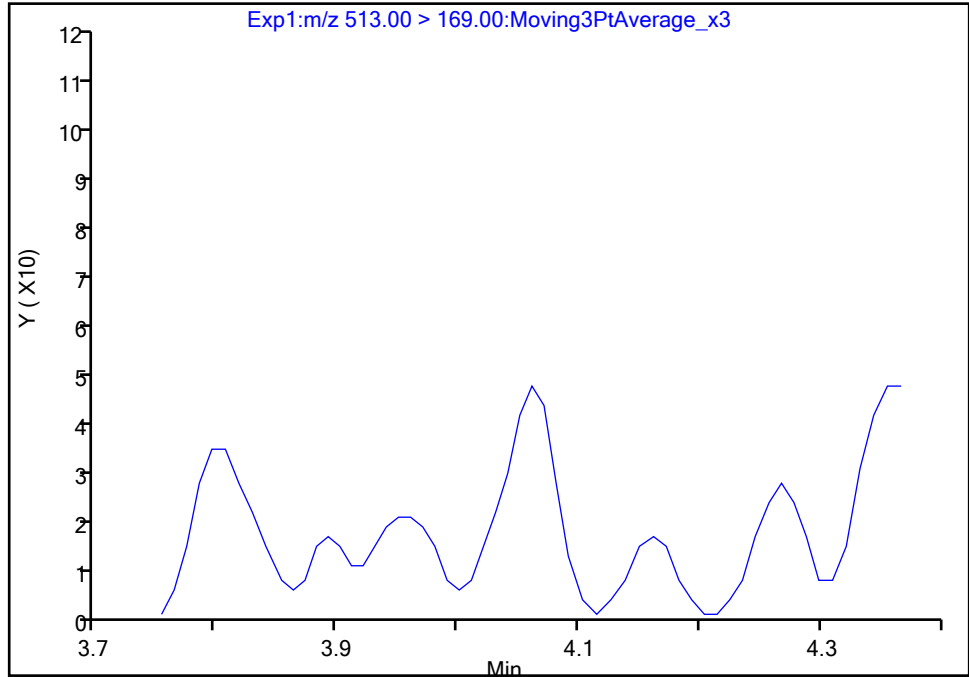
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d
Injection Date: 27-Oct-2020 20:40:17 Instrument ID: LC812
Lims ID: 480-176996-C-8-A Lab Sample ID: 200-176996-8
Client ID: TPW-14
Operator ID: lc812tech ALS Bottle#: 24 Worklist Smp#: 27
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

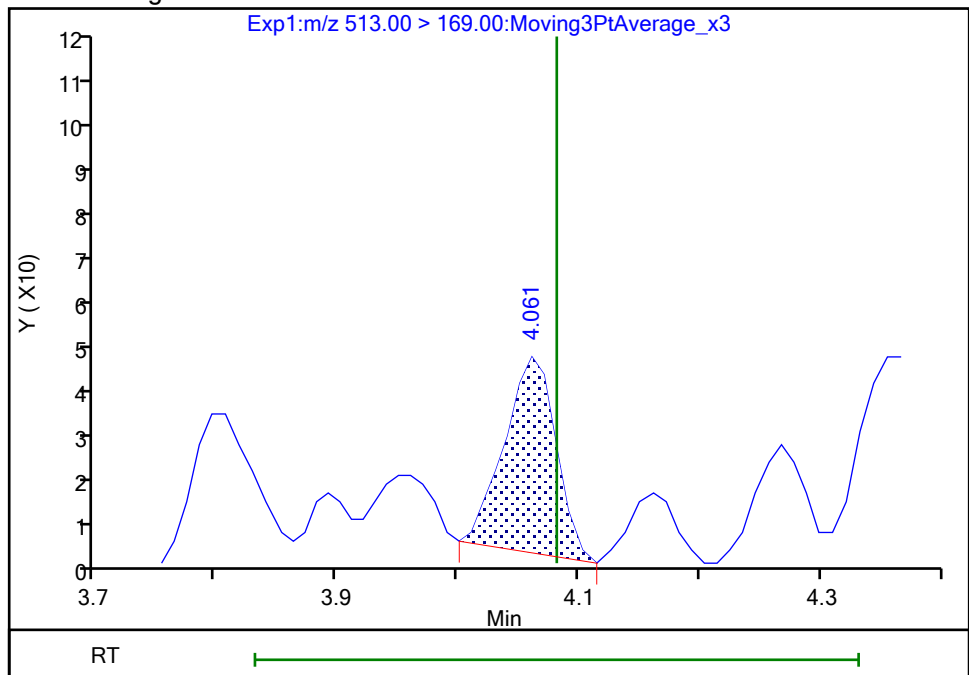
Not Detected
Expected RT: 4.08

Processing Integration Results



RT: 4.06
Area: 132
Amount: 0.002977
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:18:31

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

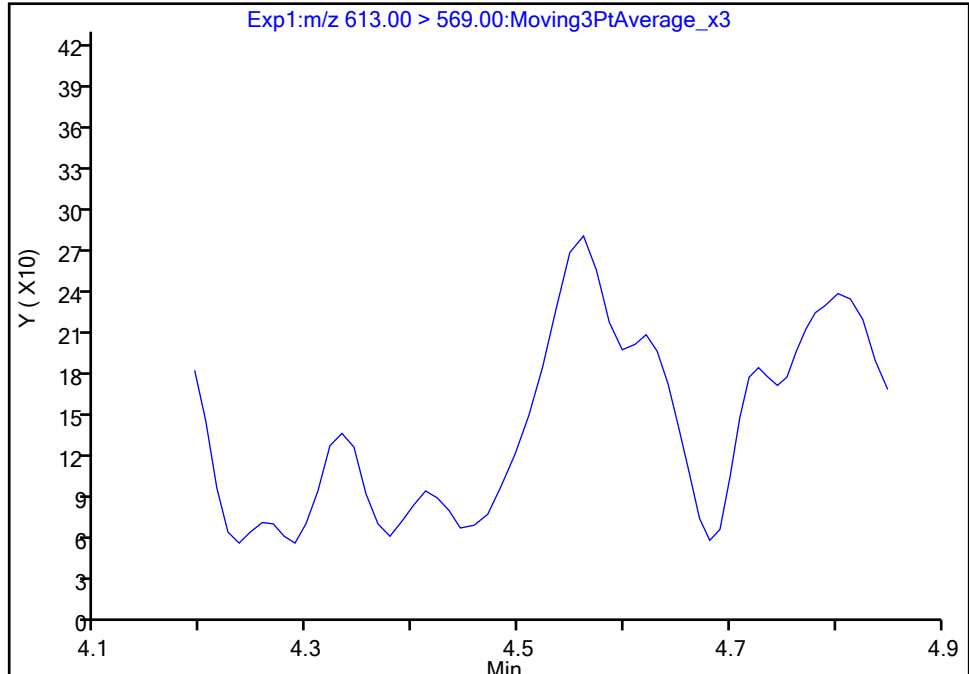
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d
Injection Date: 27-Oct-2020 20:40:17 Instrument ID: LC812
Lims ID: 480-176996-C-8-A Lab Sample ID: 200-176996-8
Client ID: TPW-14
Operator ID: lc812tech ALS Bottle#: 24 Worklist Smp#: 27
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

37 Perfluorododecanoic acid, CAS: 307-55-1

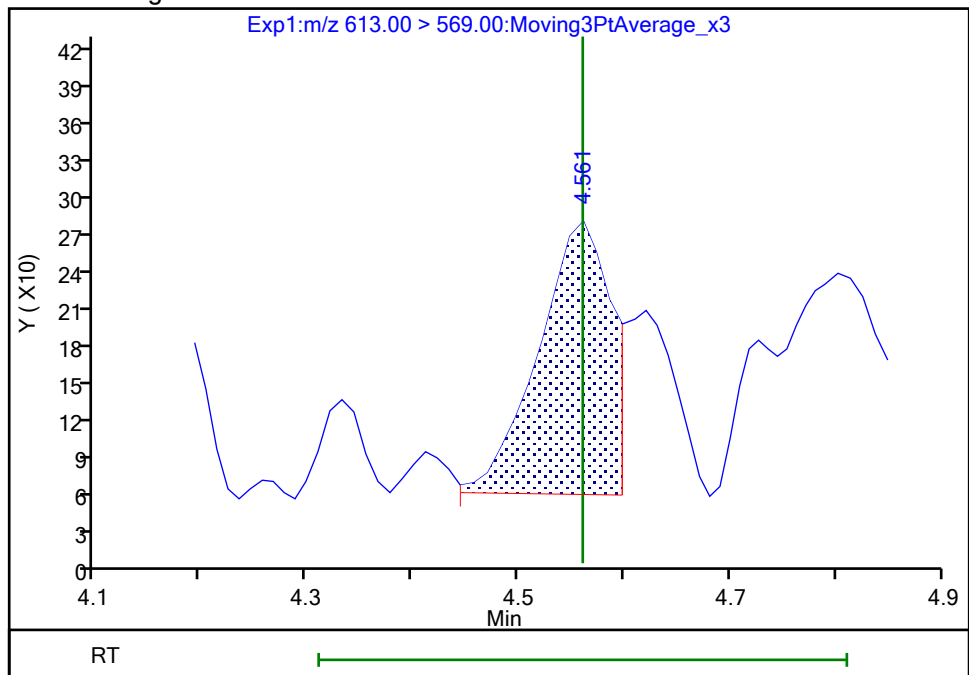
Signal: 1

Not Detected
Expected RT: 4.56

Processing Integration Results



Manual Integration Results



RT: 4.56
Area: 1031
Amount: 0.017382
Amount Units: ng/ml

Eurofins TestAmerica, Burlington

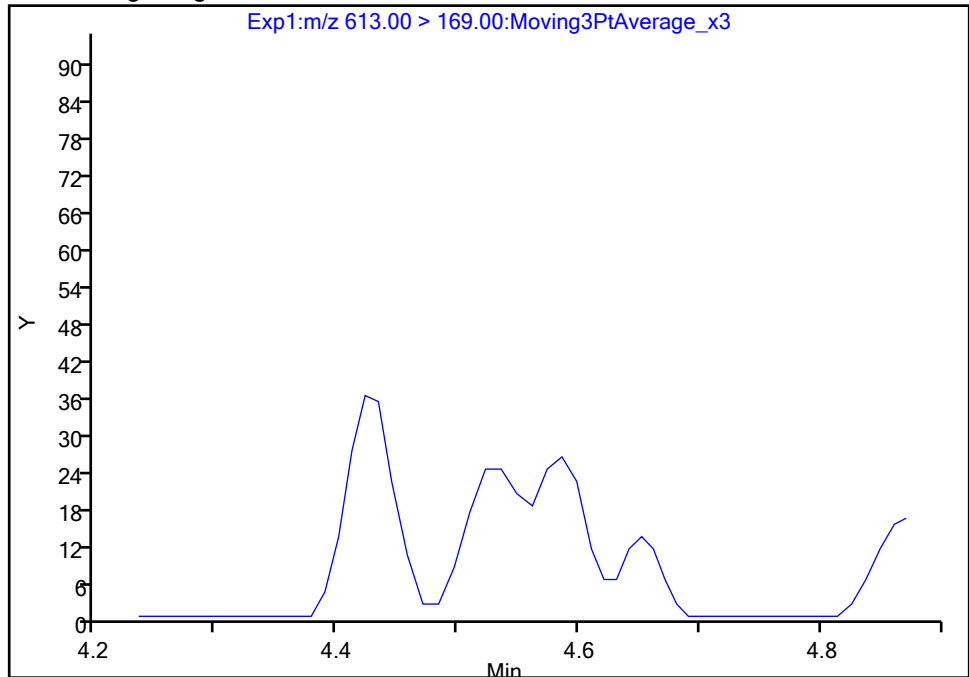
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d
Injection Date: 27-Oct-2020 20:40:17 Instrument ID: LC812
Lims ID: 480-176996-C-8-A Lab Sample ID: 200-176996-8
Client ID: TPW-14
Operator ID: lc812tech ALS Bottle#: 24 Worklist Smp#: 27
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

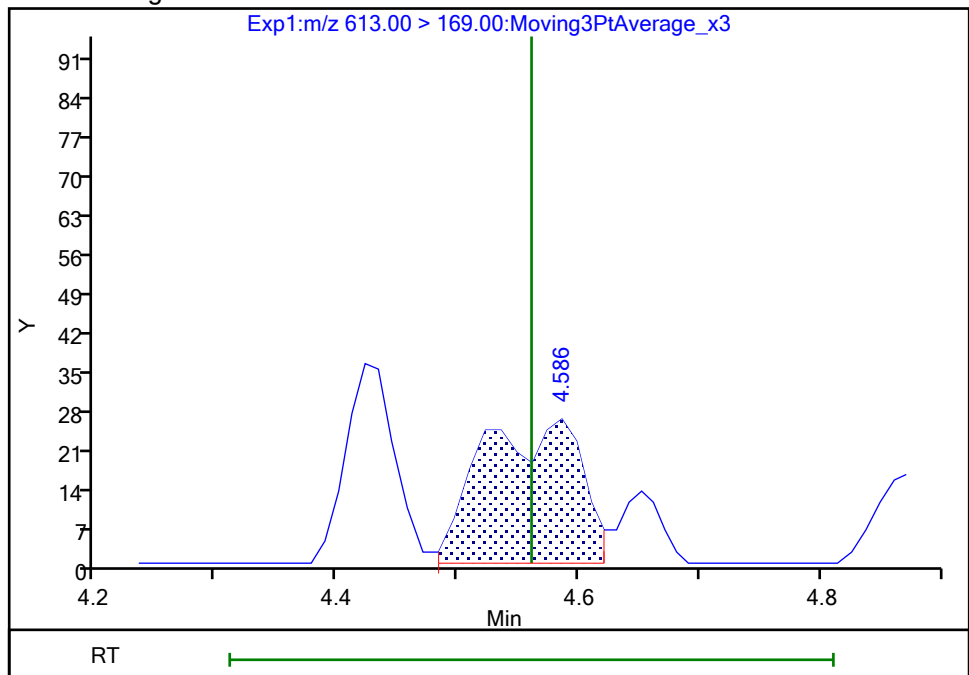
Not Detected
Expected RT: 4.56

Processing Integration Results



RT: 4.59
Area: 148
Amount: 0.017382
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 13:11:18

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

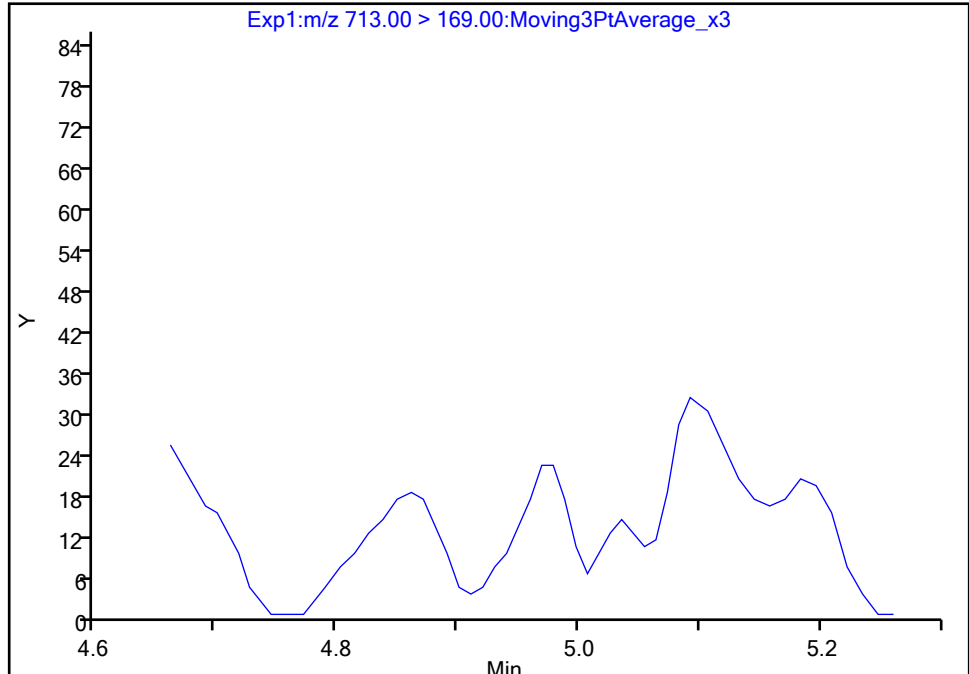
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d
Injection Date: 27-Oct-2020 20:40:17 Instrument ID: LC812
Lims ID: 480-176996-C-8-A Lab Sample ID: 200-176996-8
Client ID: TPW-14
Operator ID: lc812tech ALS Bottle#: 24 Worklist Smp#: 27
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

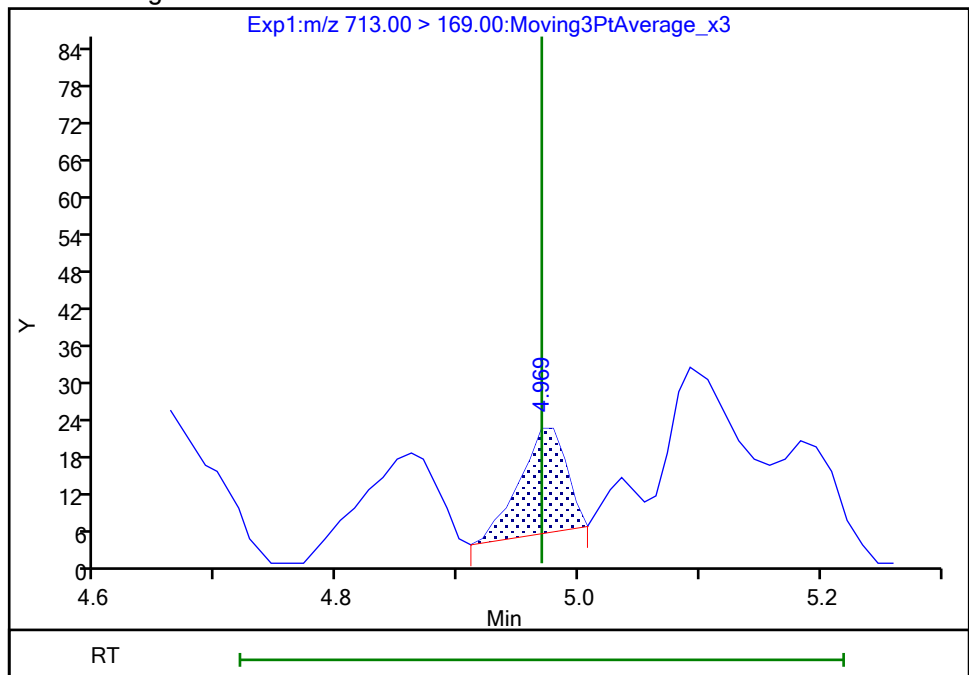
Signal: 1

Not Detected
Expected RT: 4.97

Processing Integration Results



Manual Integration Results



RT: 4.97
Area: 46
Amount: 0.004202
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:19:02

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

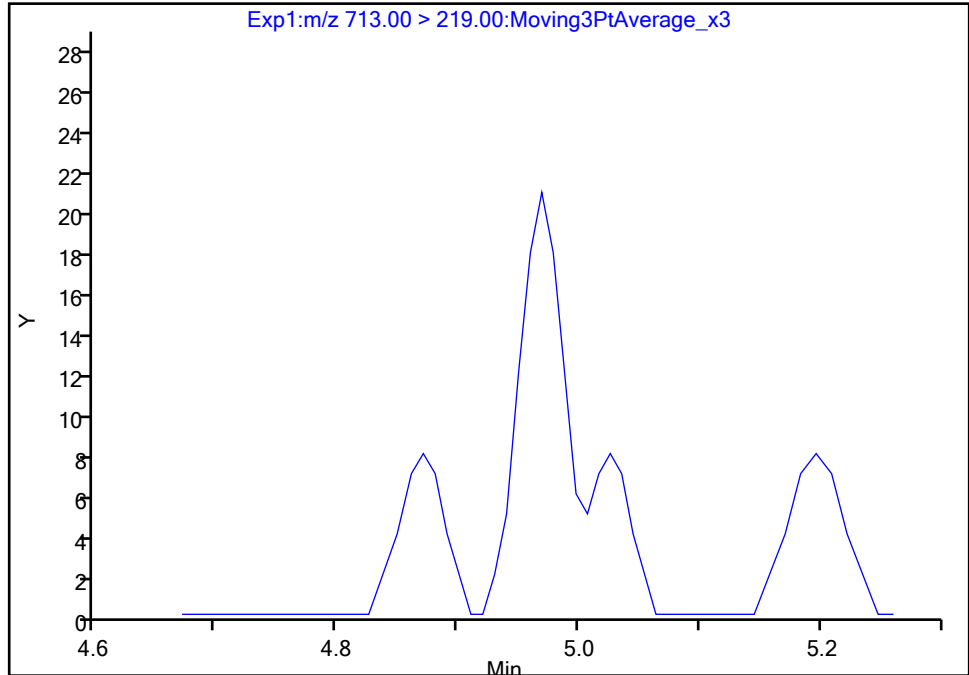
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d
Injection Date: 27-Oct-2020 20:40:17 Instrument ID: LC812
Lims ID: 480-176996-C-8-A Lab Sample ID: 200-176996-8
Client ID: TPW-14
Operator ID: lc812tech ALS Bottle#: 24 Worklist Smp#: 27
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

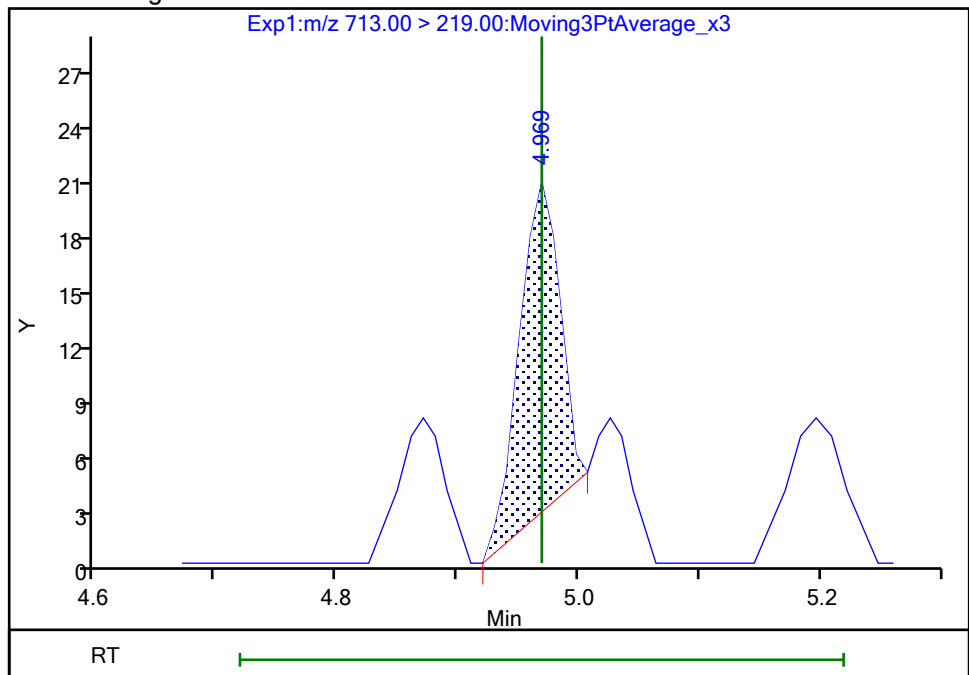
Not Detected
Expected RT: 4.97

Processing Integration Results



Manual Integration Results

RT: 4.97
Area: 42
Amount: 0.004202
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 10:19:05

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 453 of 906

Eurofins TestAmerica, Burlington

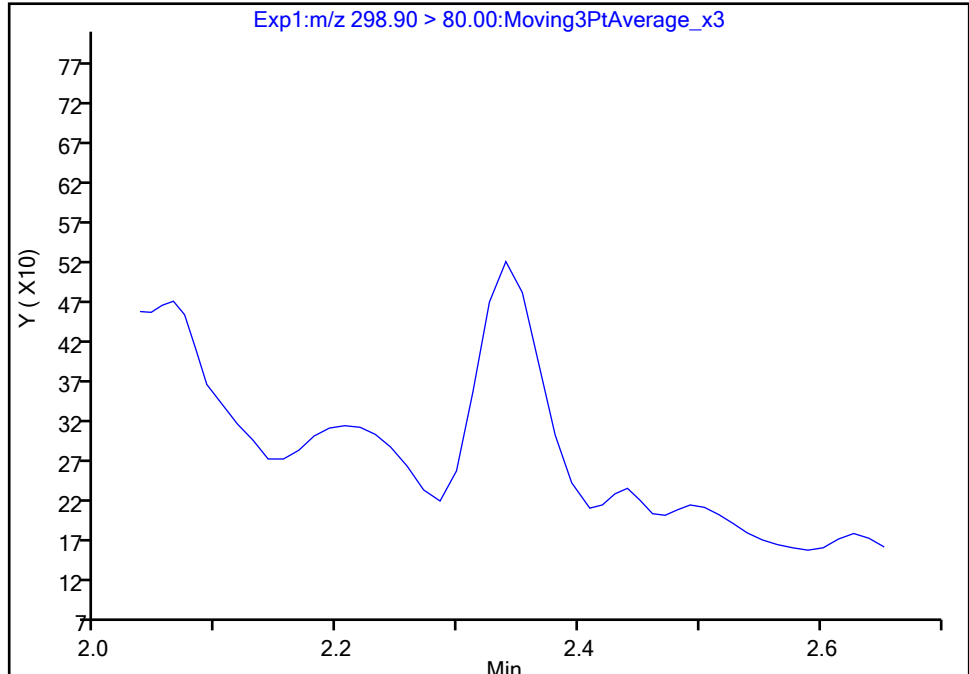
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d				
Injection Date:	27-Oct-2020 20:40:17	Instrument ID:	LC812		
Lims ID:	480-176996-C-8-A	Lab Sample ID:	200-176996-8		
Client ID:	TPW-14				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	27
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

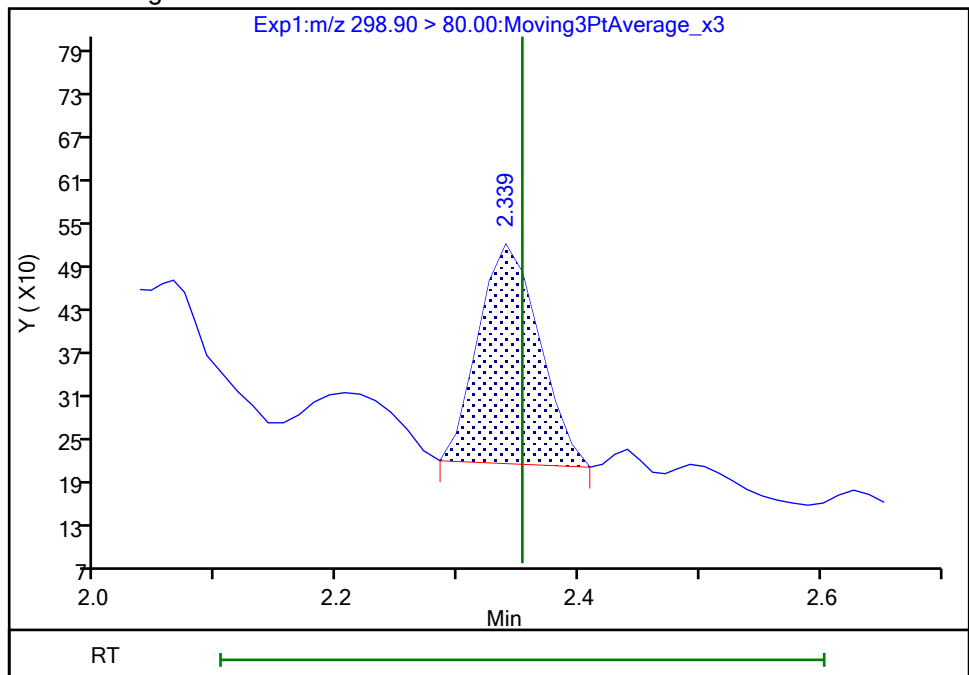
Signal: 1

Not Detected
Expected RT: 2.35

Processing Integration Results

RT: 2.34
Area: 1069
Amount: 0.001933
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:15:56

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

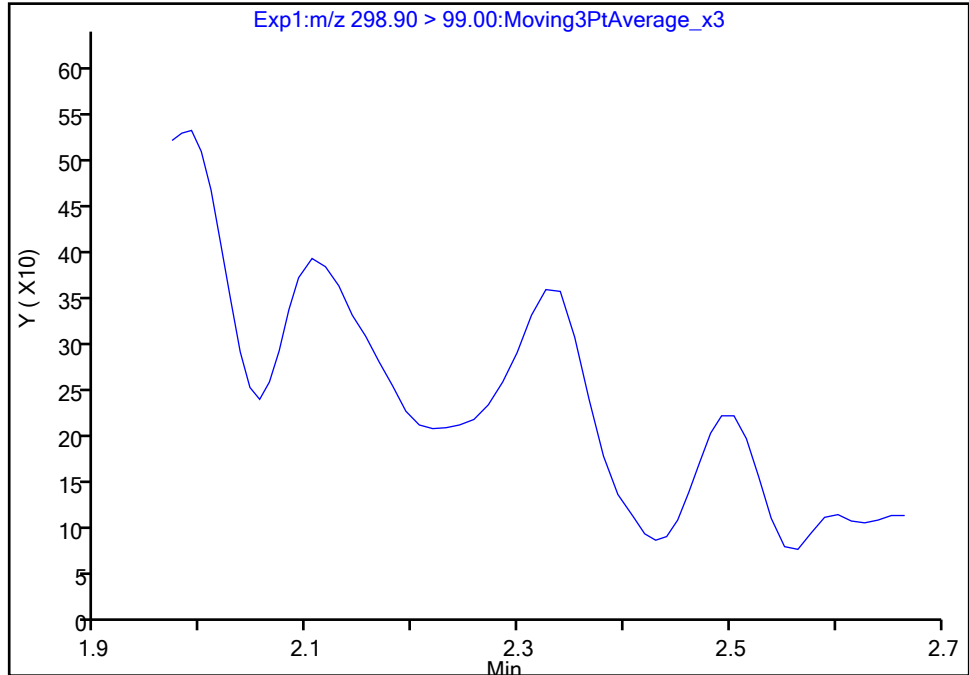
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d
Injection Date: 27-Oct-2020 20:40:17 Instrument ID: LC812
Lims ID: 480-176996-C-8-A Lab Sample ID: 200-176996-8
Client ID: TPW-14
Operator ID: lc812tech ALS Bottle#: 24 Worklist Smp#: 27
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

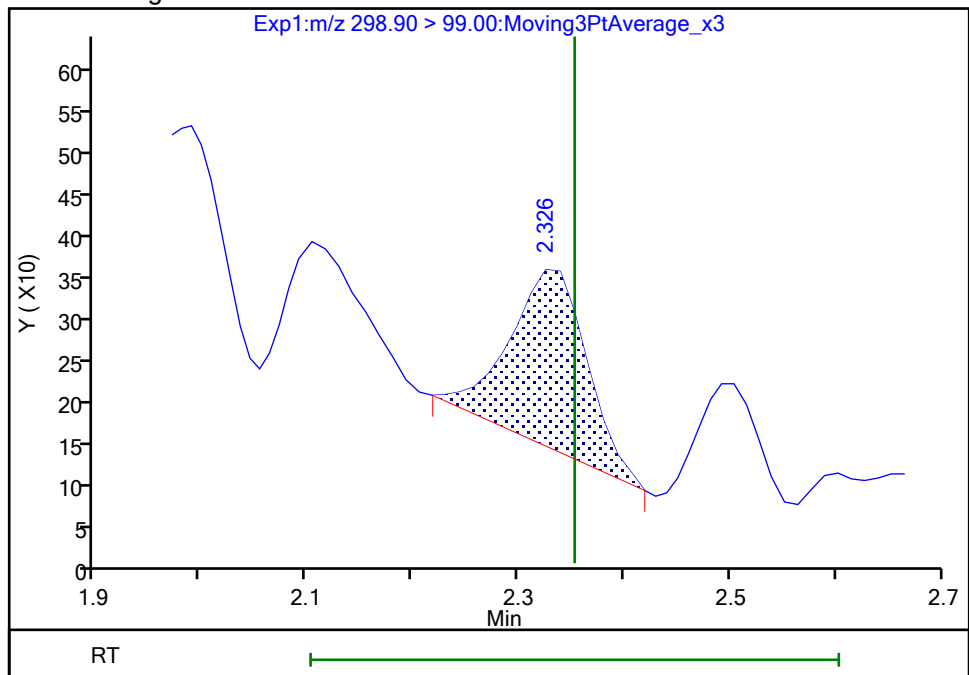
Not Detected
Expected RT: 2.35

Processing Integration Results



Manual Integration Results

RT: 2.33
Area: 1095
Amount: 0.001933
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 10:16:02

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

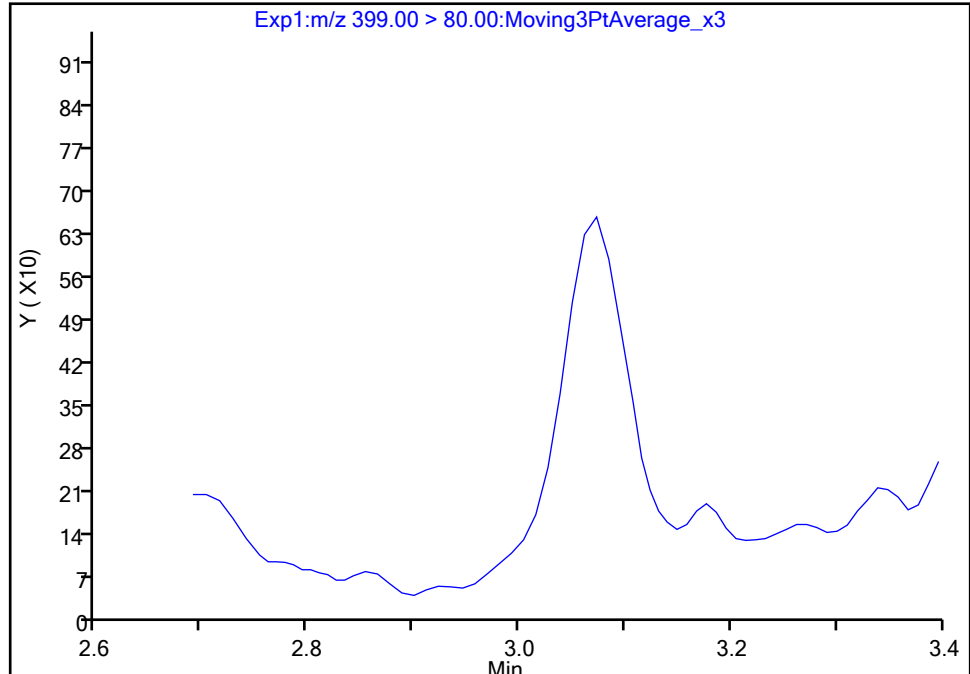
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d				
Injection Date:	27-Oct-2020 20:40:17	Instrument ID:	LC812		
Lims ID:	480-176996-C-8-A	Lab Sample ID:	200-176996-8		
Client ID:	TPW-14				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	27
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

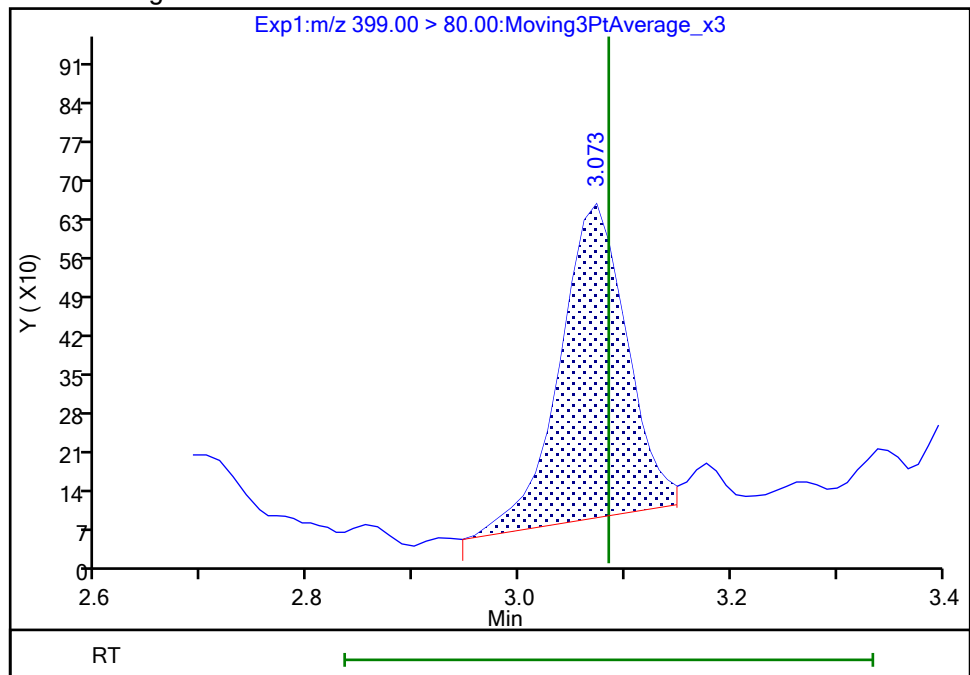
Signal: 1

Not Detected
Expected RT: 3.08

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:16:45

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

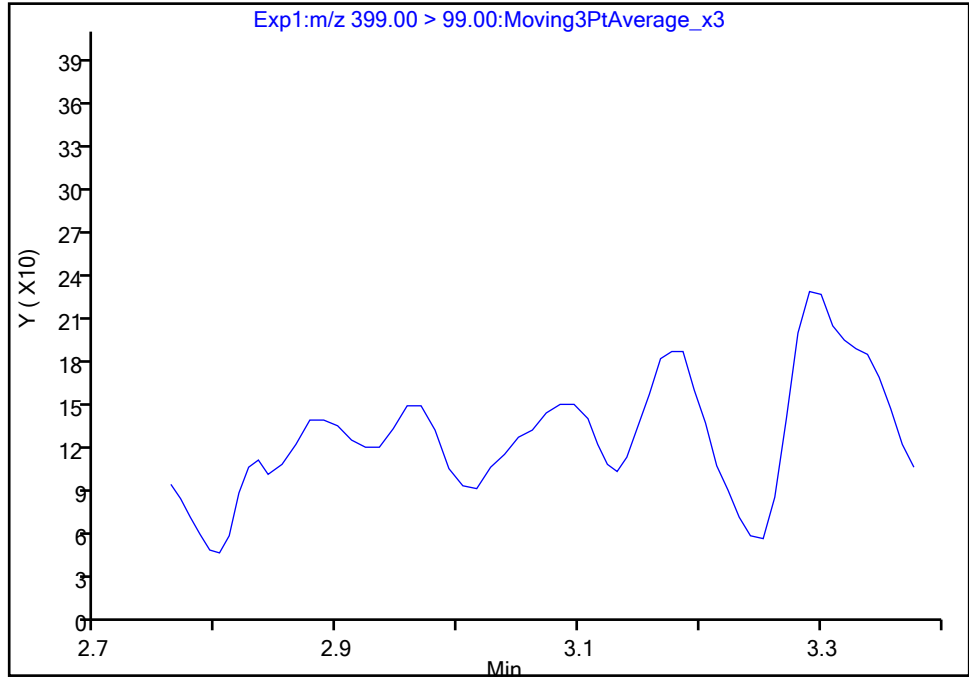
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d
Injection Date: 27-Oct-2020 20:40:17 Instrument ID: LC812
Lims ID: 480-176996-C-8-A Lab Sample ID: 200-176996-8
Client ID: TPW-14
Operator ID: lc812tech ALS Bottle#: 24 Worklist Smp#: 27
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

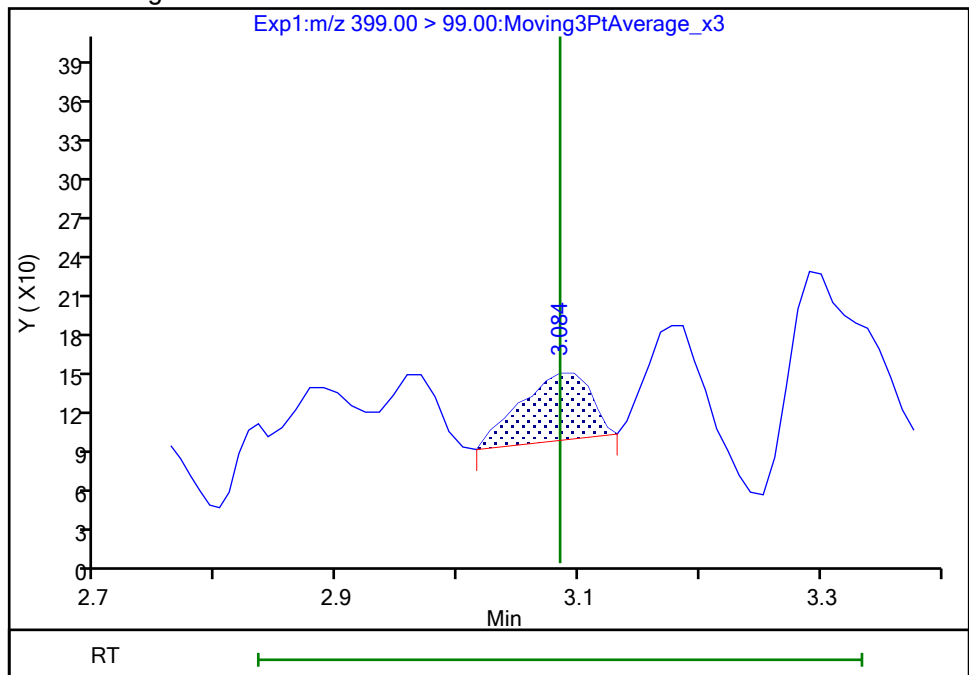
Signal: 2

Not Detected
Expected RT: 3.08

Processing Integration Results



Manual Integration Results



RT: 3.08
Area: 211
Amount: 0.005681
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:16:49

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 457 of 906

Eurofins TestAmerica, Burlington

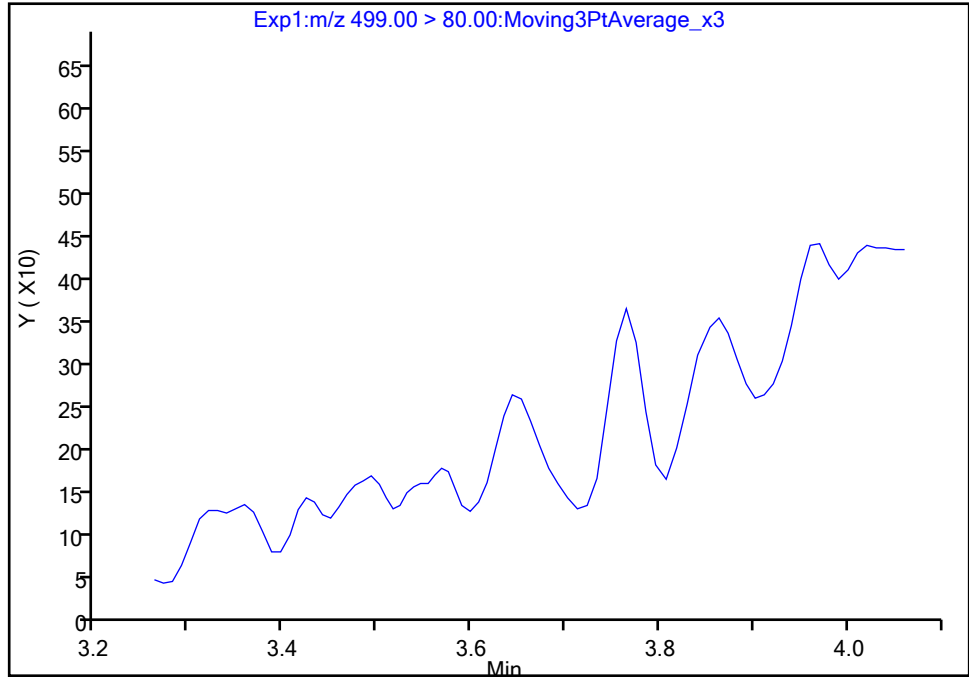
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d
Injection Date: 27-Oct-2020 20:40:17 Instrument ID: LC812
Lims ID: 480-176996-C-8-A Lab Sample ID: 200-176996-8
Client ID: TPW-14
Operator ID: lc812tech ALS Bottle#: 24 Worklist Smp#: 27
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

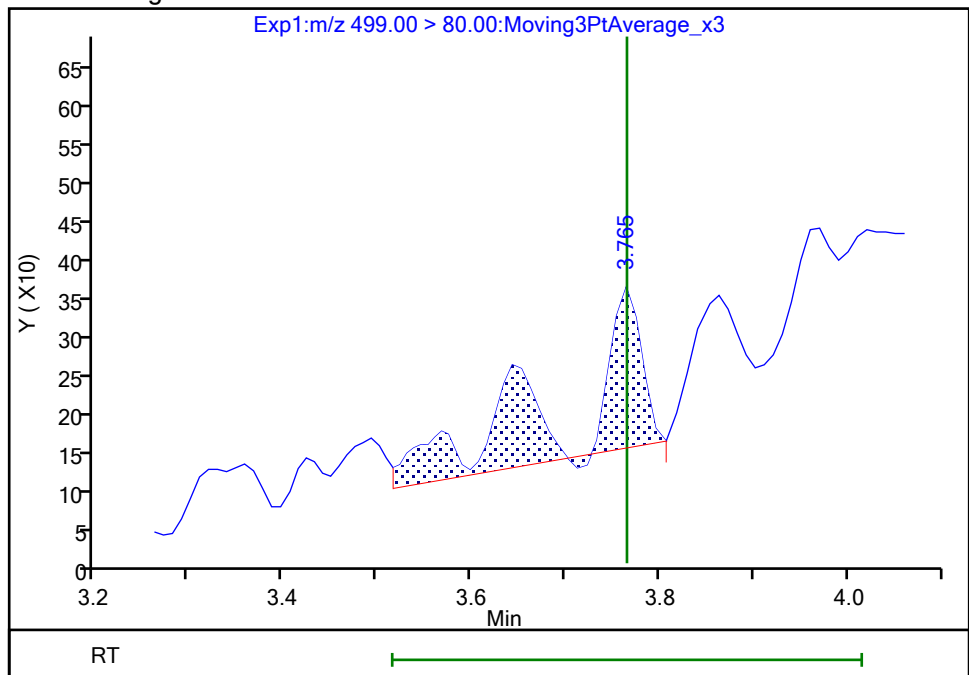
Signal: 1

Not Detected
Expected RT: 3.77

Processing Integration Results



Manual Integration Results



RT: 3.76
Area: 1085
Amount: 0.005535
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:17:48

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

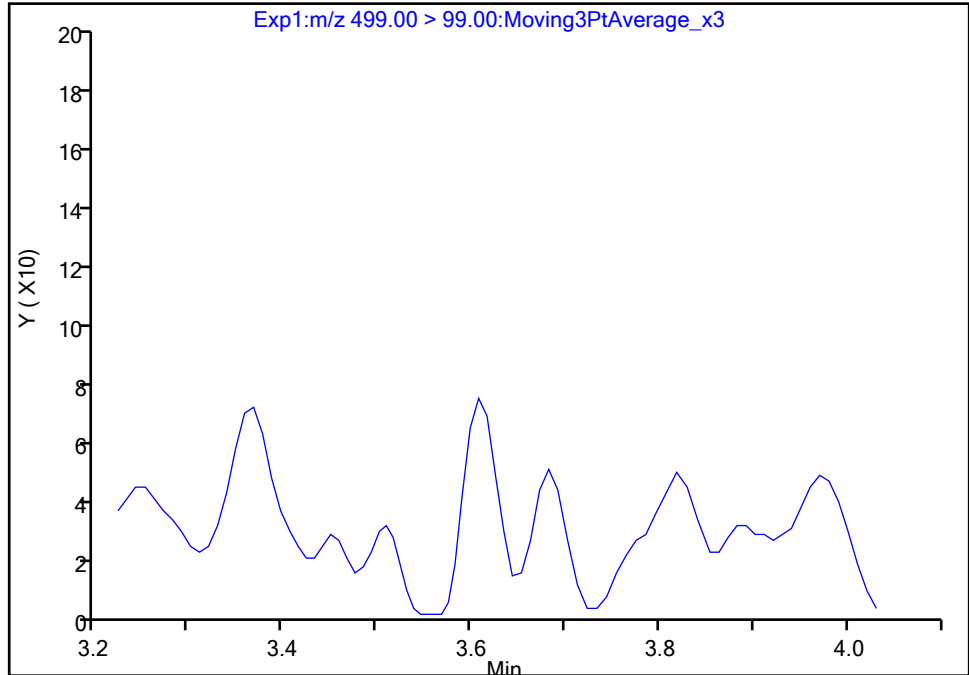
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d
Injection Date: 27-Oct-2020 20:40:17 Instrument ID: LC812
Lims ID: 480-176996-C-8-A Lab Sample ID: 200-176996-8
Client ID: TPW-14
Operator ID: lc812tech ALS Bottle#: 24 Worklist Smp#: 27
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

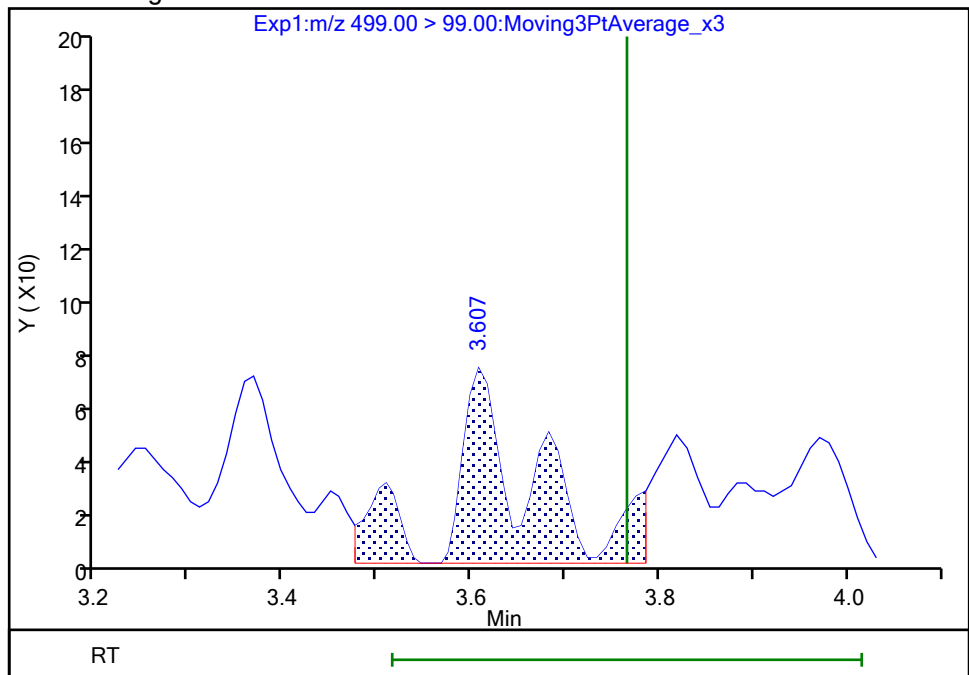
Not Detected
Expected RT: 3.77

Processing Integration Results



Manual Integration Results

RT: 3.61
Area: 431
Amount: 0.005535
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 10:18:12

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

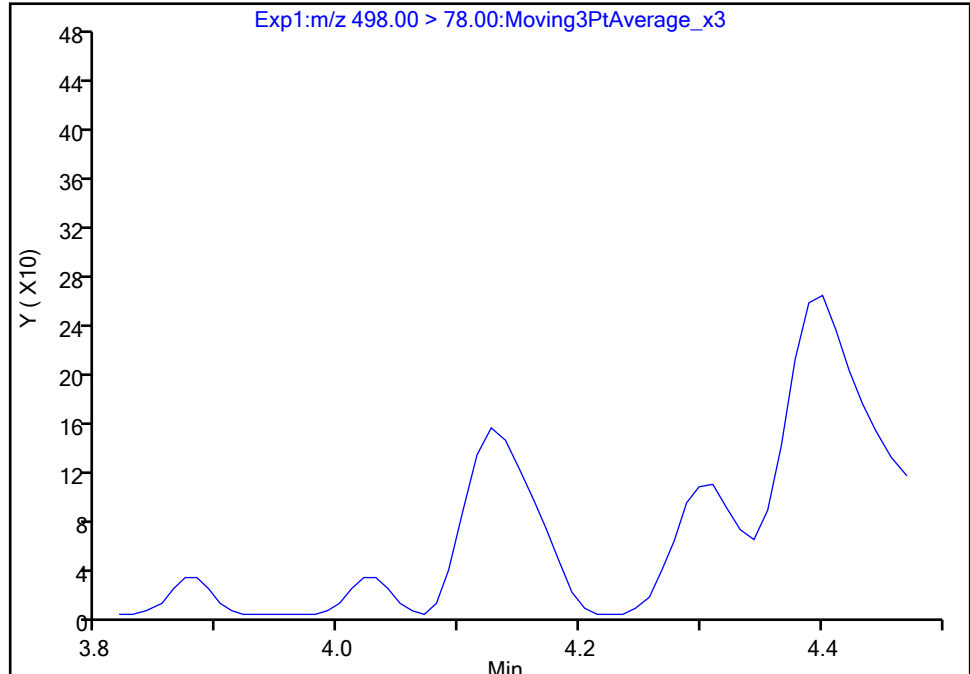
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d
Injection Date: 27-Oct-2020 20:40:17 Instrument ID: LC812
Lims ID: 480-176996-C-8-A Lab Sample ID: 200-176996-8
Client ID: TPW-14
Operator ID: lc812tech ALS Bottle#: 24 Worklist Smp#: 27
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

22 Perfluorooctanesulfonamide, CAS: 754-91-6

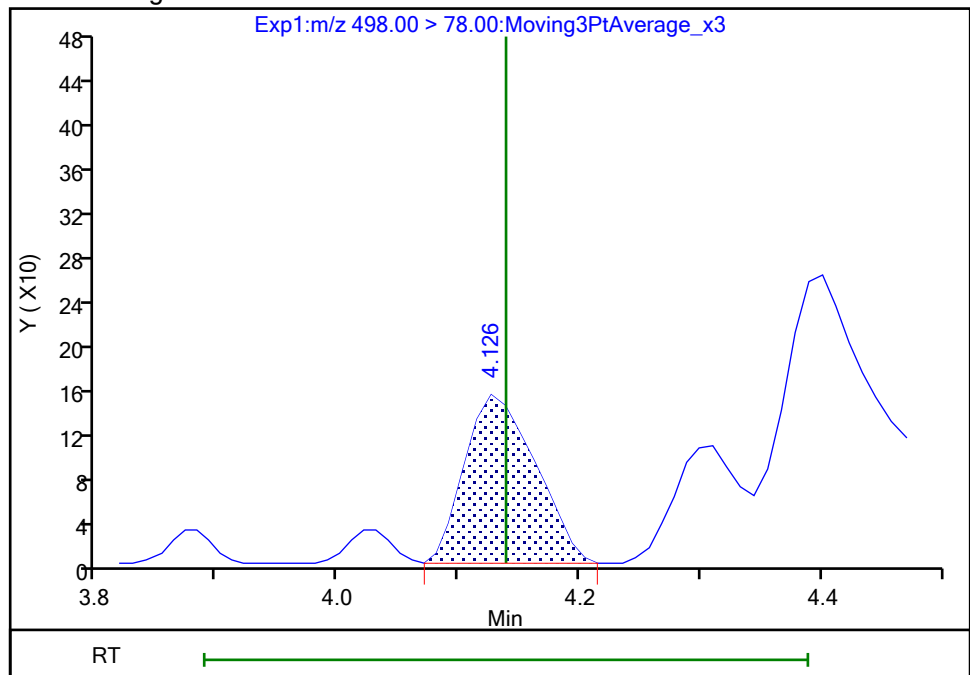
Signal: 1

Not Detected
Expected RT: 4.14

Processing Integration Results



Manual Integration Results



RT: 4.13
Area: 618
Amount: 0.001885
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:18:44

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

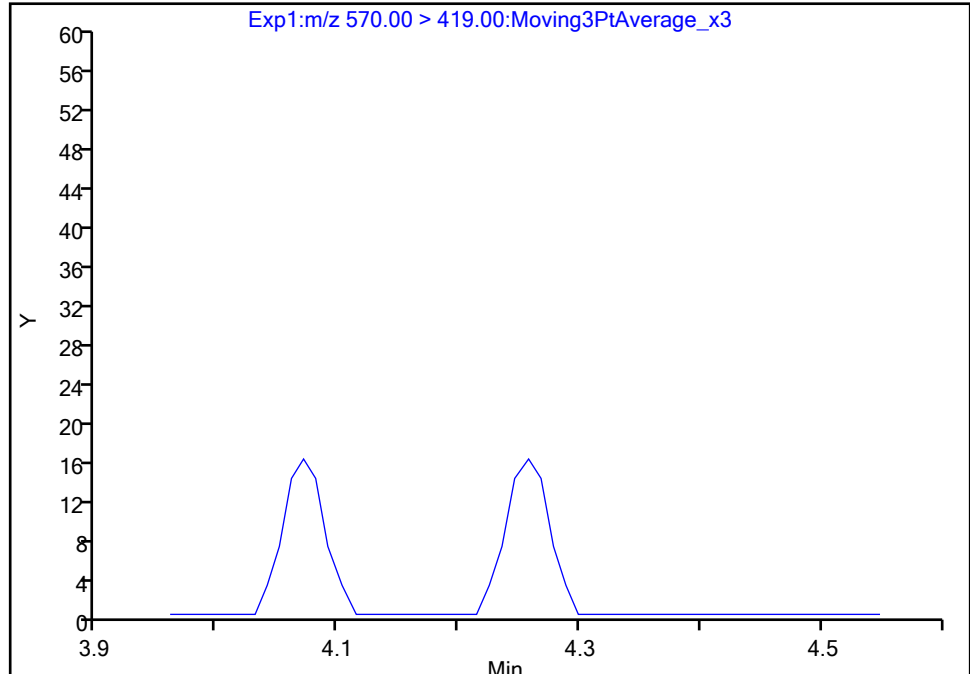
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d
Injection Date: 27-Oct-2020 20:40:17 Instrument ID: LC812
Lims ID: 480-176996-C-8-A Lab Sample ID: 200-176996-8
Client ID: TPW-14
Operator ID: lc812tech ALS Bottle#: 24 Worklist Smp#: 27
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

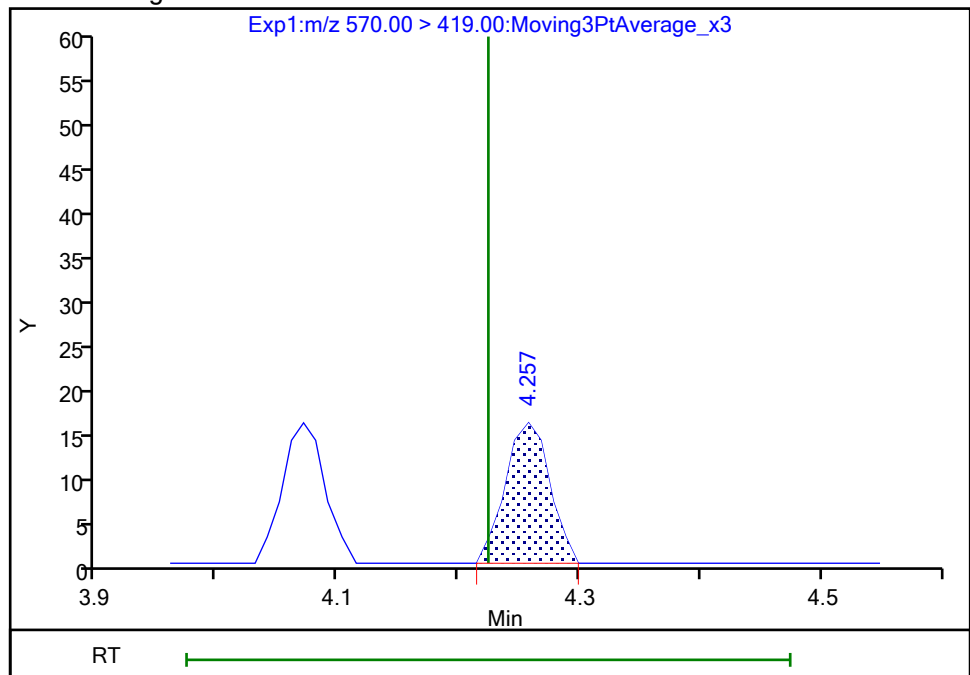
Signal: 1

Not Detected
Expected RT: 4.22

Processing Integration Results



Manual Integration Results



RT: 4.26
Area: 40
Amount: 0.006577
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:18:49

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

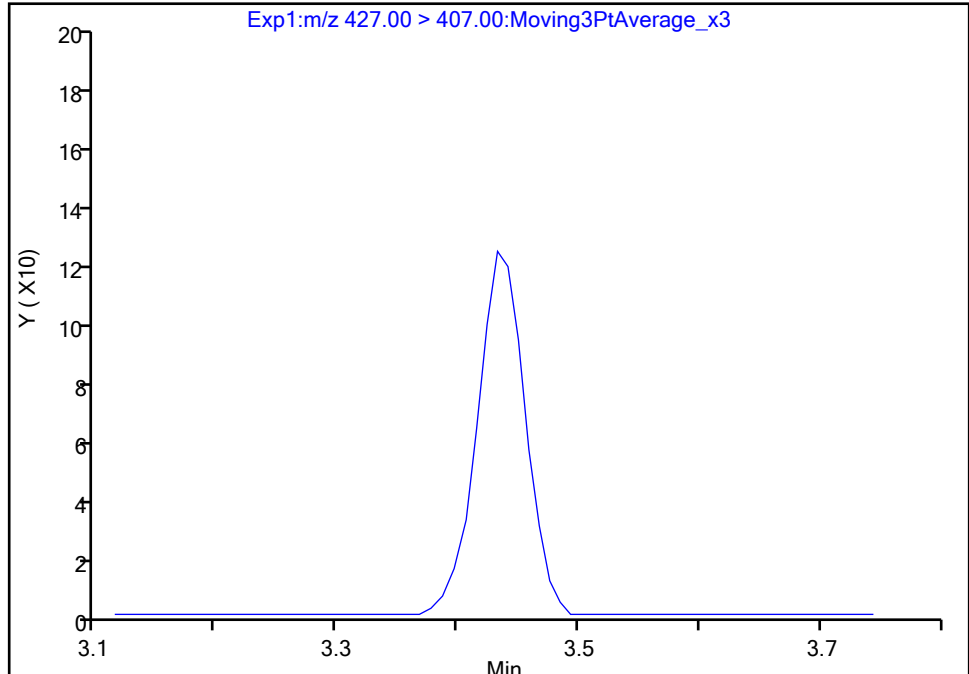
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d				
Injection Date:	27-Oct-2020 20:40:17	Instrument ID:	LC812		
Lims ID:	480-176996-C-8-A	Lab Sample ID:	200-176996-8		
Client ID:	TPW-14				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	27
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

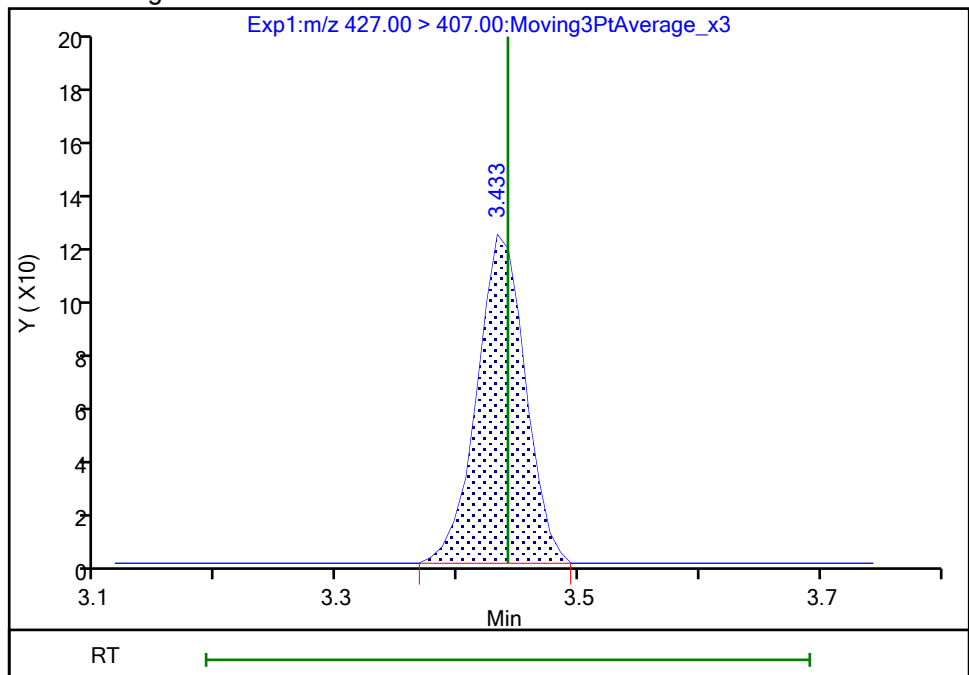
Signal: 1

Not Detected
Expected RT: 3.44

Processing Integration Results



Manual Integration Results

RT: 3.43
Area: 330
Amount: 0.008277
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:17:04

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

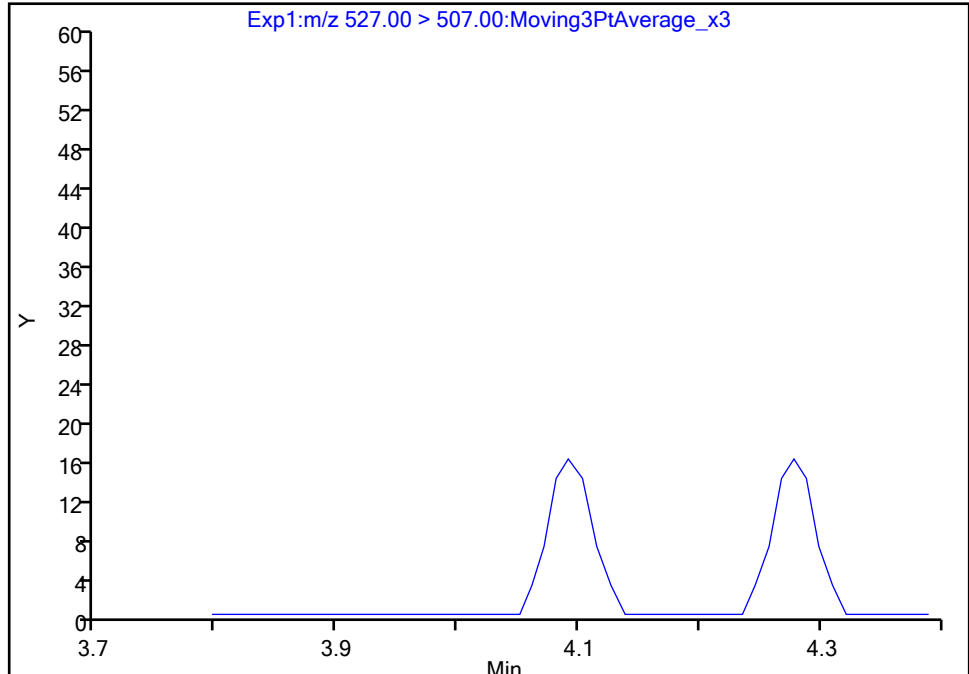
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A27.d
Injection Date: 27-Oct-2020 20:40:17 Instrument ID: LC812
Lims ID: 480-176996-C-8-A Lab Sample ID: 200-176996-8
Client ID: TPW-14
Operator ID: lc812tech ALS Bottle#: 24 Worklist Smp#: 27
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

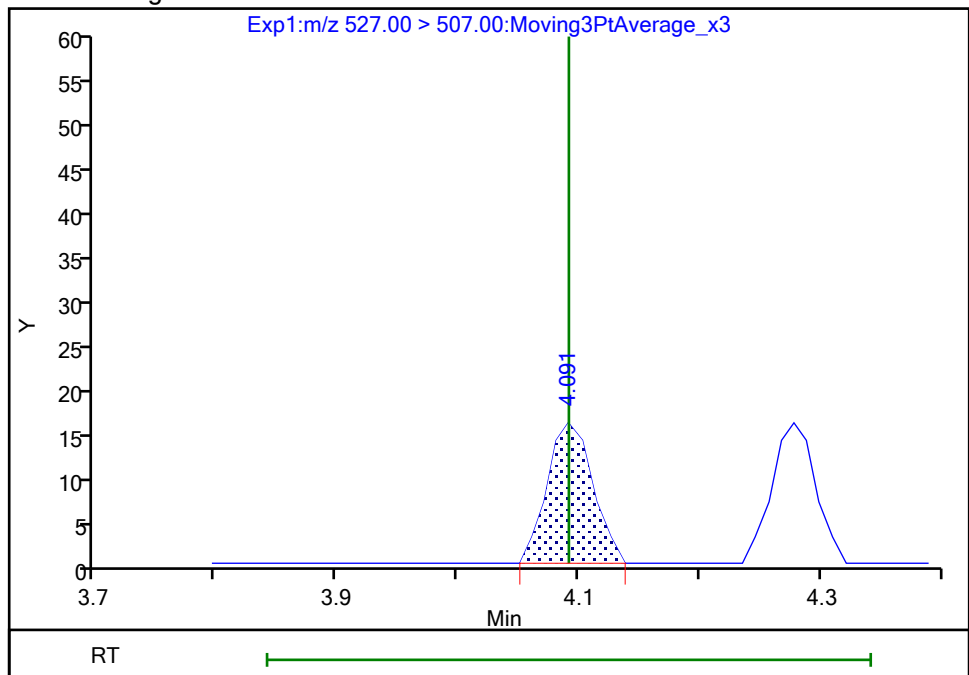
Signal: 1

Not Detected
Expected RT: 4.09

Processing Integration Results



Manual Integration Results



RT: 4.09
Area: 41
Amount: 0.004177
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:18:39

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins TestAmerica, Burlington</u>	Job No.: <u>480-176996-1</u>
SDG No.: _____	
Client Sample ID: <u>DUPLICATE</u>	Lab Sample ID: <u>480-176996-9</u>
Matrix: <u>Water</u>	Lab File ID: <u>PA201027A28.d</u>
Analysis Method: <u>537 (modified)</u>	Date Collected: <u>10/21/2020 00:00</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/27/2020 09:15</u>
Sample wt/vol: <u>288.8 (mL)</u>	Date Analyzed: <u>10/27/2020 20:48</u>
Con. Extract Vol.: <u>10 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>20 (uL)</u>	GC Column: <u>C-18</u> ID: <u>4.6 (mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>160481</u>	Units: <u>ng/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	10		4.3	0.98
2706-90-3	Perfluoropentanoic acid (PFPeA)	2.2		1.7	0.93
307-24-4	Perfluorohexanoic acid (PFHxA)	2.4		1.7	0.72
375-85-9	Perfluoroheptanoic acid (PFHpA)	2.8		1.7	0.40
335-67-1	Perfluorooctanoic acid (PFOA)	3.5		1.7	0.85
375-95-1	Perfluorononanoic acid (PFNA)	1.1	J	1.7	0.50
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.7	0.40
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.63
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.7	0.40
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.37
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.51
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.1	J	1.7	0.55
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1.3	J	1.7	0.58
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.34
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2.0		1.7	0.75
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.42
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.49
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.3	0.68
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.3	0.81
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.3	0.62
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7	0.57

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Client Sample ID: DUPLICATE Lab Sample ID: 480-176996-9
 Matrix: Water Lab File ID: PA201027A28.d
 Analysis Method: 537 (modified) Date Collected: 10/21/2020 00:00
 Extraction Method: 3535 Date Extracted: 10/27/2020 09:15
 Sample wt/vol: 288.8 (mL) Date Analyzed: 10/27/2020 20:48
 Con. Extract Vol.: 10 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: C-18 ID: 4.6 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 160481 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	102		50-150
STL01892	13C4 PFHpA	95		50-150
STL00990	13C4 PFOA	91		50-150
STL00991	13C4 PFOS	98		50-150
STL00995	13C5 PFNA	90		50-150
STL00992	13C4 PFBA	70		25-150
STL00993	13C2 PFHxA	92		50-150
STL00996	13C2 PFDA	88		50-150
STL00997	13C2 PFUnA	86		50-150
STL00998	13C2 PFDoA	68		50-150
STL01056	13C8 FOSA	82		25-150
STL01893	13C5 PFPeA	87		25-150
STL02116	13C2 PFTeDA	72		50-150
STL02118	d3-NMeFOSAA	71		50-150
STL02117	d5-NEtFOSAA	83		50-150
STL02279	M2-6:2 FTS	108		25-150
STL02280	M2-8:2 FTS	86		25-150
STL02337	13C3 PFBS	89		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A28.d
 Lims ID: 480-176996-C-9-A
 Client ID: DUPLICATE
 Sample Type: Client
 Inject. Date: 27-Oct-2020 20:48:34 ALS Bottle#: 25 Worklist Smp#: 28
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: 480-176996-C-9-A
 Misc. Info.: 200-0043412-028 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Method: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 28-Oct-2020 13:19:45 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1652

First Level Reviewer: khanphomeea

Date: 28-Oct-2020 10:23:04

Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.981	1.981	0.0	0.574	666068	0.8706		69.6	3872	
2 Perfluorobutanoic acid										M
212.90 > 169.00	1.981	1.990	-0.009	1.000	150451	0.3021			19.4	M
D 3 13C5 PFPeA										
267.90 > 223.00	2.312	2.326	-0.014	0.670	596317	1.09		87.0	659	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.312	2.326	-0.014	1.000	32578	0.0647			0.4	M
D 47 13C3 PFBS										M
301.90 > 80.00	2.339	2.339	0.0	0.678	689841	1.03		88.9	52642	M
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.339	2.353	-0.014	1.000	18652	0.0315	Target=2.07		4.7	
298.90 > 99.00	2.339	2.353	-0.014	1.000	8614		2.17(1.04-3.11)		1.4	
D 7 13C2 PFHxA										
315.00 > 270.00	2.691	2.703	-0.012	0.780	650236	1.15		92.1	3504	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.691	2.703	-0.012	1.000	36746	0.0702	Target=12.44		3.4	
313.00 > 119.00	2.691	2.703	-0.012	1.000	3307		11.11(6.22-18.66)		5.5	
D 11 18O2 PFHxS										
403.00 > 84.00	3.073	3.084	-0.011	0.891	578614	1.21		102	4105	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.073	3.084	-0.011	1.000	20472	0.0379	Target=4.60		12.1	M
399.00 > 99.00	3.073	3.084	-0.011	1.000	4319		4.74(2.30-6.91)		3.3	
D 9 13C4 PFHpA										
367.00 > 322.00	3.084	3.084	0.0	0.894	607363	1.18		94.6	2523	
10 Perfluoroheptanoic acid										M
363.00 > 319.00	3.084	3.084	0.0	1.000	39090	0.0803	Target=3.34		4.6	M
363.00 > 169.00	3.084	3.084	0.0	1.000	11370		3.44(1.67-5.01)		27.9	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2 FTS										
429.00 > 81.00	3.432	3.441	-0.009	0.995	81960	1.28		108	175	
13 1H,1H,2H,2H-perfluorooctanesulfo										M
427.00 > 407.00	3.432	3.441	-0.009	1.000	72	0.001307			2.6	M
D 14 13C4 PFOA										
417.00 > 372.00	3.450	3.450	0.0	1.000	595500	1.13		90.6	4207	
* 62 13C2 PFOA										
415.00 > 370.00	3.450	3.450	0.0		667419	1.25			4402	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.450	3.458	-0.008	1.000	49363	0.1004	Target=2.29		17.6	
413.00 > 169.00	3.450	3.458	-0.008	1.000	22804		2.16(1.14-3.43)		59.7	M
D 18 13C4 PFOS										
503.00 > 80.00	3.765	3.765	0.0	1.091	458482	1.17		97.9	1080	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.765	3.765	0.0	1.000	24175	0.0580	Target=7.10		19.9	M
499.00 > 99.00	3.765	3.765	0.0	1.000	2860		8.45(3.55-10.64)		6.0	M
D 19 13C5 PFNA										
468.00 > 423.00	3.776	3.786	-0.010	1.094	501041	1.13		90.5	4355	
20 Perfluorononanoic acid										M
463.00 > 419.00	3.776	3.786	-0.010	1.000	12966	0.0318	Target=5.83		4.2	M
463.00 > 169.00	3.786	3.786	0.0	1.003	1902		6.82(2.91-8.74)		17.7	M
D 23 13C2 PFDA										
515.00 > 470.00	4.072	4.082	-0.010	1.180	466727	1.10		87.9	3851	
24 Perfluorodecanoic acid										M
513.00 > 469.00	4.082	4.082	0.0	1.002	1382	0.003741	Target=6.81		2.0	M
513.00 > 169.00	4.092	4.082	0.010	1.005	263		5.25(3.41-10.22)		4.2	M
D 26 M2-8:2 FTS										
529.00 > 81.00	4.082	4.092	-0.010	1.183	77629	1.03		85.9	198	
25 1H,1H,2H,2H-perfluorodecanesulfo										M
527.00 > 507.00	4.092	4.092	0.0	1.002	84	0.003273				M
D 21 13C8 FOSA										
506.00 > 78.00	4.139	4.139	0.0	1.200	700778	1.02		81.9	3554	
22 Perfluorooctanesulfonamide										M
498.00 > 78.00	4.139	4.139	0.0	1.000	686	0.001309			4.4	M
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.214	4.214	0.0	1.221	21513	0.8895		71.2	506	
28 N-methylperfluorooctanesulfonami										M
570.00 > 419.00	4.224	4.224	0.0	1.002	79	0.004864			1.6	M
D 30 13C2 PFUnA										
565.00 > 520.00	4.332	4.343	-0.011	1.256	343200	1.07		85.6	3579	
31 Perfluoroundecanoic acid										RM
563.00 > 519.00	4.332	4.343	-0.011	1.000	849	0.003135	Target=6.57		1.6	RM
563.00 > 169.00	4.343	4.343	0.0	1.003	60		14.15(3.28-9.85)		1.6	M
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.343	4.343	0.0	1.259	26924	1.04		82.8	518	
33 N-ethylperfluorooctanesulfonamid										M
584.00 > 419.00	4.343	4.355	-0.012	1.000	83	0.004209			3.3	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags

D 36 13C2 PFDaA

615.00 > 570.00	4.561	4.561	0.0	1.322	287569	0.8485		67.9	3201	

37 Perfluorododecanoic acid

613.00 > 569.00	4.561	4.561	0.0	1.000	503	0.002242	Target=5.16		1.0	RM

613.00 > 169.00	4.561	4.561	0.0	1.000	216		2.33(2.58-7.75)		5.5	M

41 Perfluorotridecanoic acid

663.00 > 619.00	4.763	4.772	-0.009	1.044	783	0.004110	Target=3.30		1.2	RM

663.00 > 169.00	4.772	4.772	0.0	1.046	54		14.50(1.65-4.95)		2.1	M

D 43 13C2 PFTeDA

715.00 > 670.00	4.969	4.969	0.0	1.440	218465	0.9049		72.4	2668	

42 Perfluorotetradecanoic acid

713.00 > 169.00	4.960	4.969	-0.009	0.998	295	0.007369	Target=1.06		7.7	M

713.00 > 219.00	4.960	4.969	-0.009	0.998	191		1.54(0.53-1.59)		7.1	M

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A28.d

Injection Date: 27-Oct-2020 20:48:34

Instrument ID: LC812

Lims ID: 480-176996-C-9-A

Lab Sample ID: 200-176996-9

Client ID: DUPLICATE

Operator ID: lc812tech

ALS Bottle#: 25

Worklist Smp#: 28

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

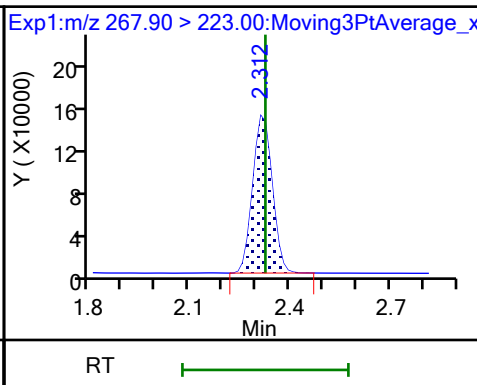
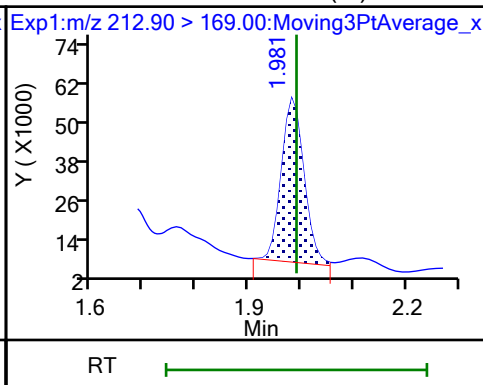
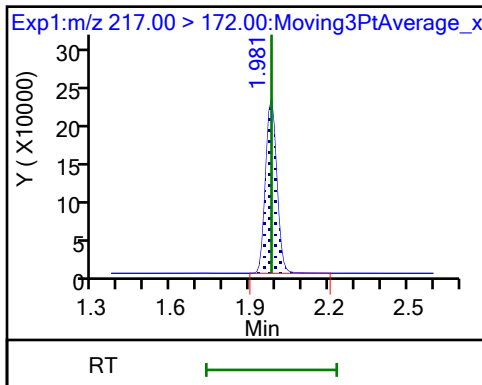
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid (M)

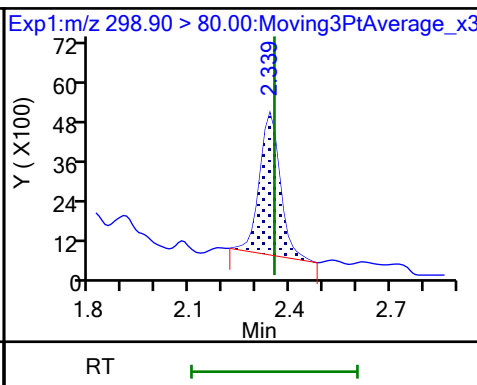
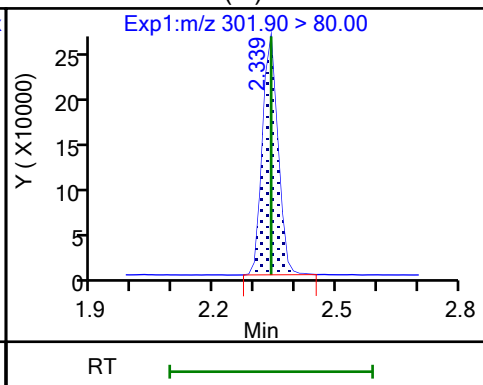
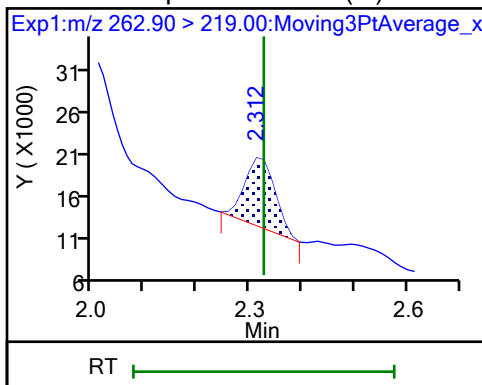
D 3 13C5 PFPeA



4 Perfluoropentanoic acid (M)

D 47 13C3 PFBS (M)

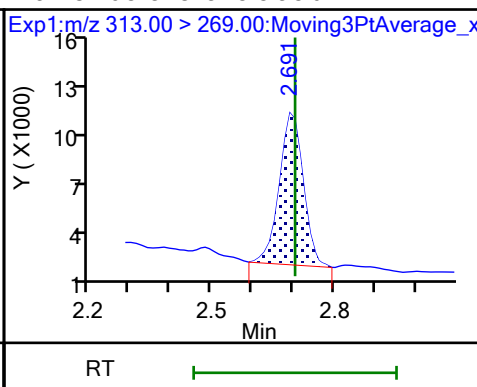
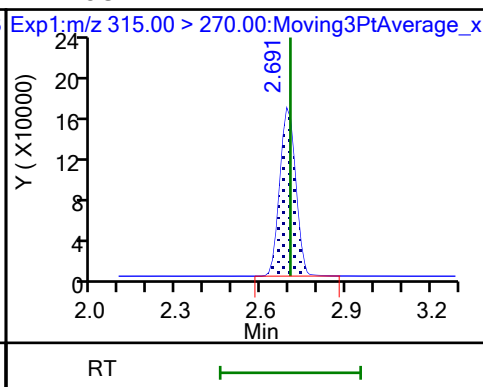
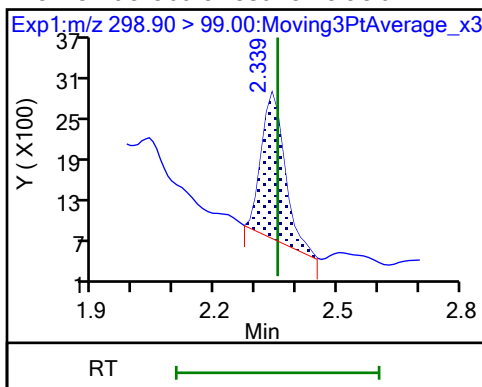
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

D 7 13C2 PFHxA

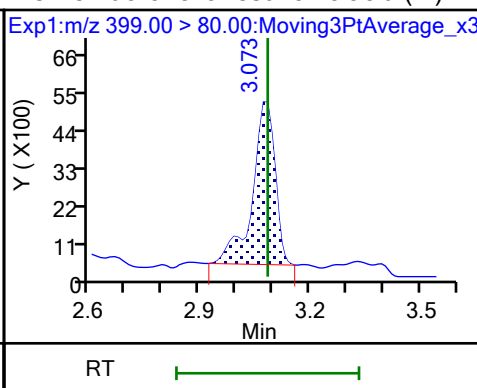
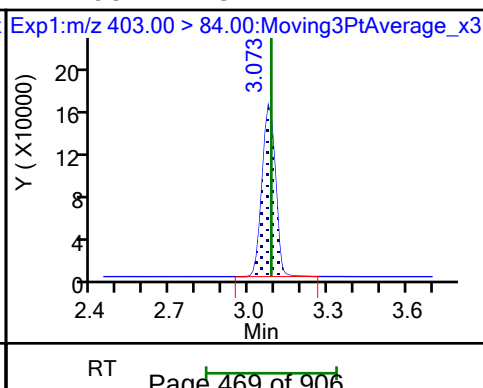
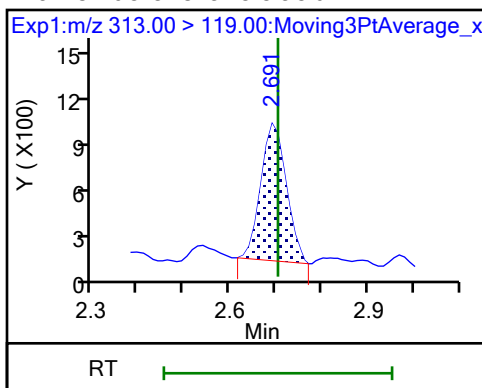
6 Perfluorohexanoic acid

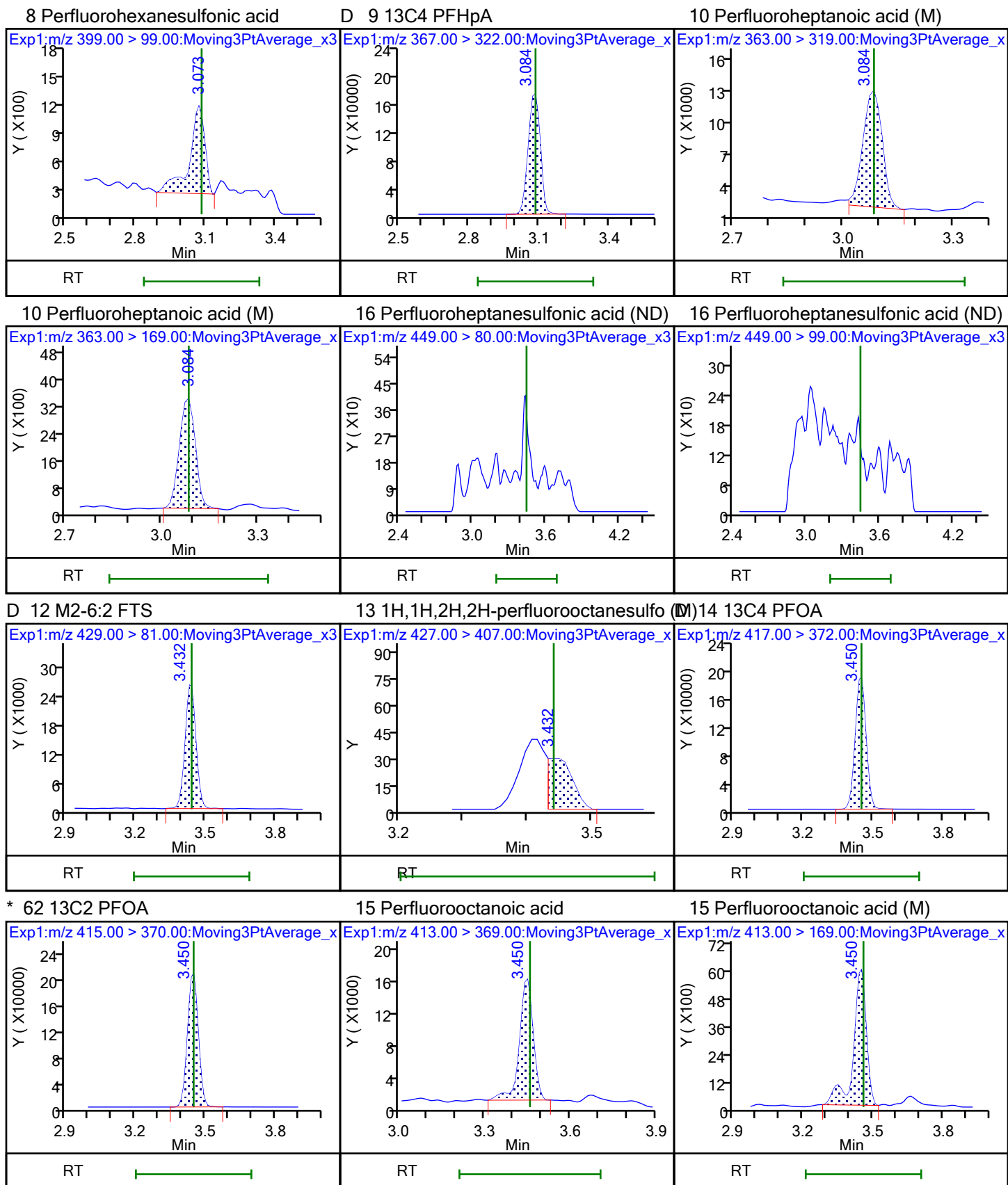


6 Perfluorohexanoic acid

D 11 18O2 PFHxS

8 Perfluorohexanesulfonic acid (M)

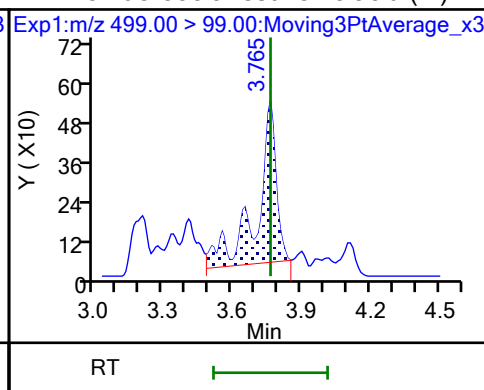
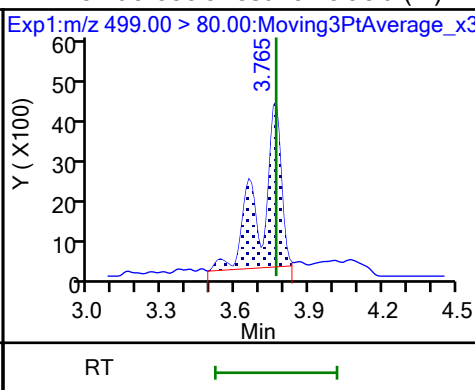
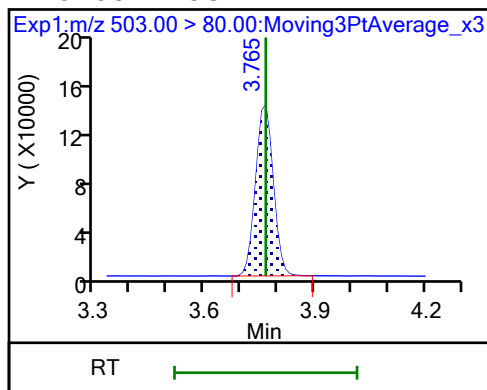




D 18 13C4 PFOS

17 Perfluorooctanesulfonic acid (M)

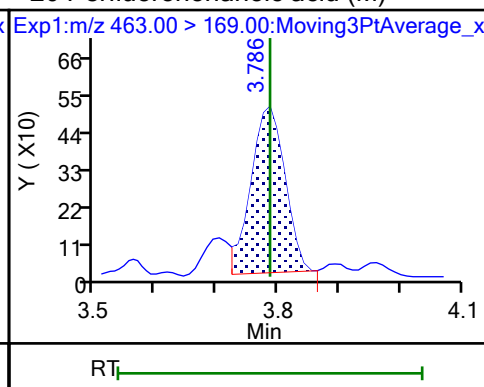
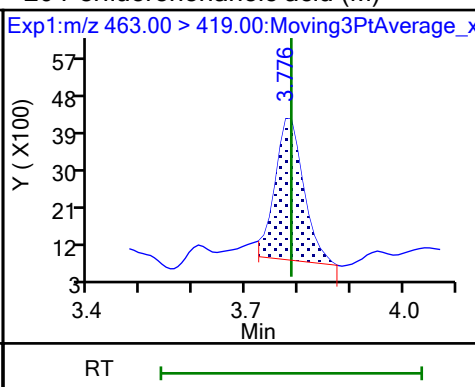
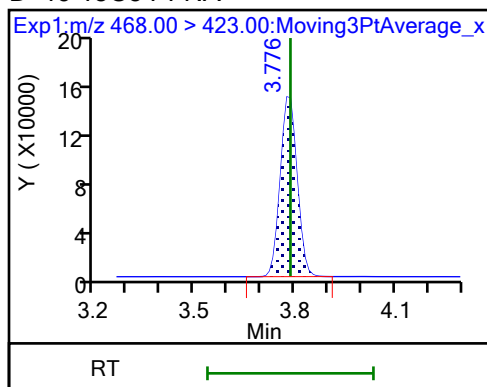
17 Perfluorooctanesulfonic acid (M)



D 19 13C5 PFNA

20 Perfluorononanoic acid (M)

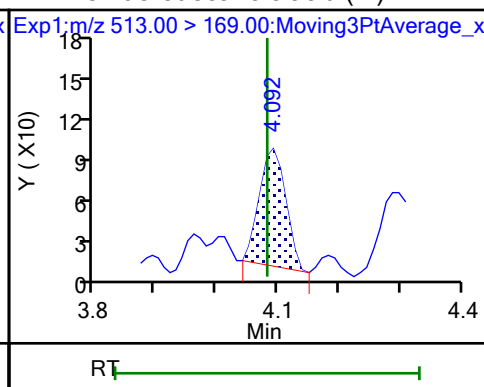
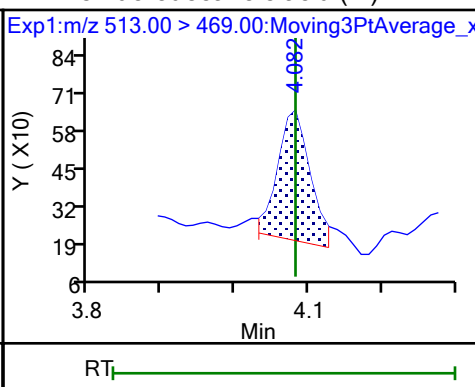
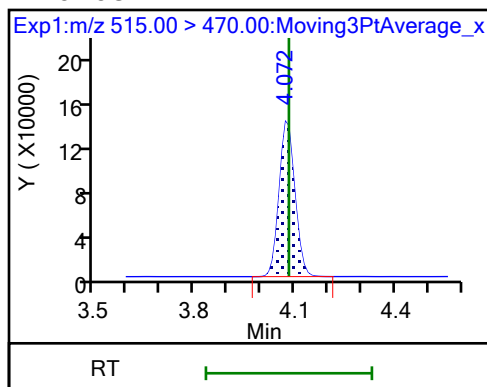
20 Perfluorononanoic acid (M)



D 23 13C2 PFDA

24 Perfluorodecanoic acid (M)

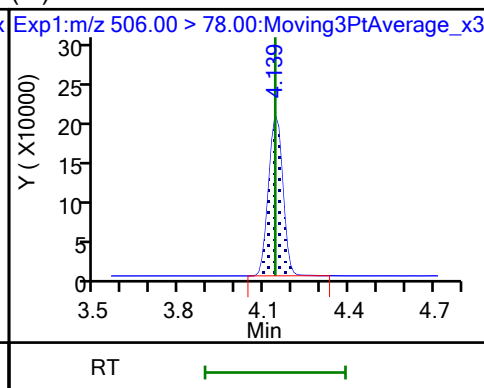
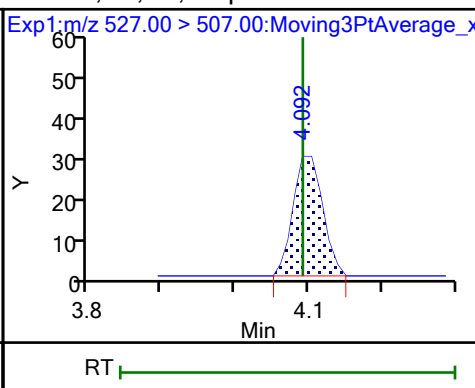
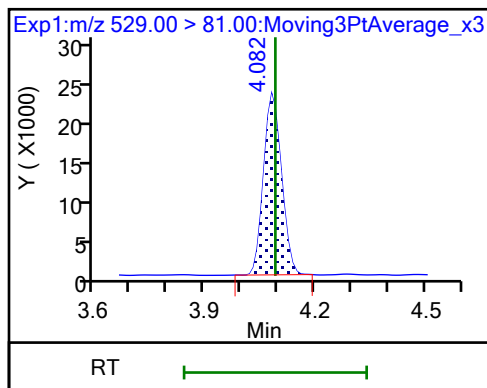
24 Perfluorodecanoic acid (M)

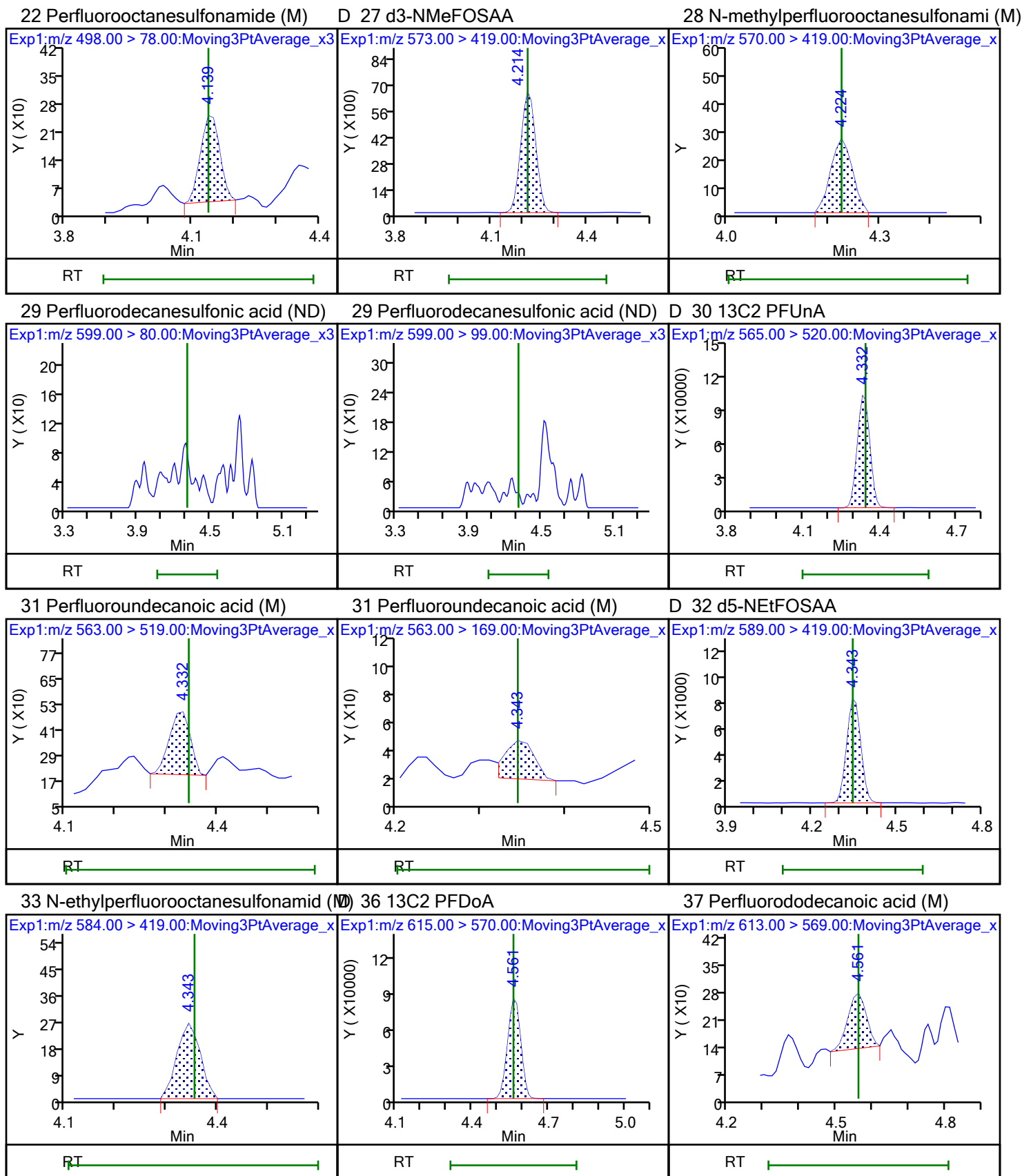


D 26 M2-8:2 FTS

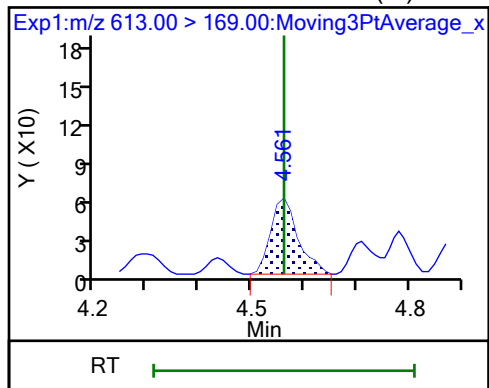
25 1H,1H,2H,2H-perfluorodecanesulfonic acid (M)

21 13C8 FOSA

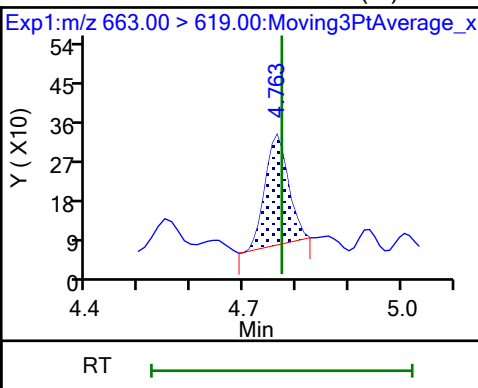




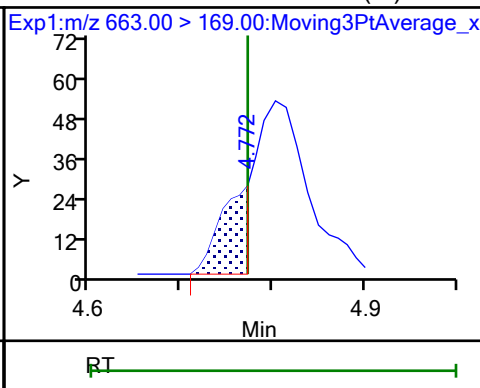
37 Perfluorododecanoic acid (M)



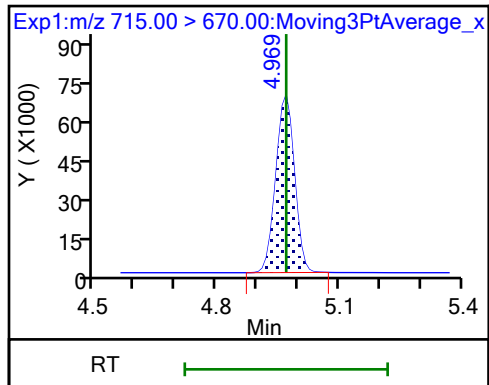
41 Perfluorotridecanoic acid (M)



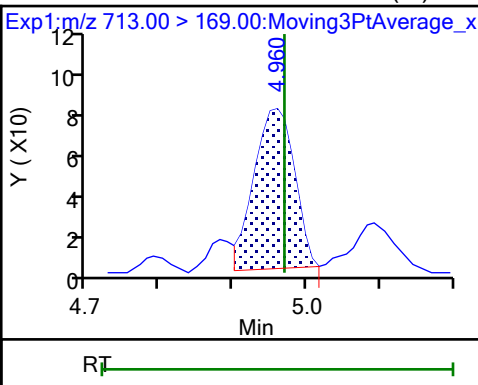
41 Perfluorotridecanoic acid (M)



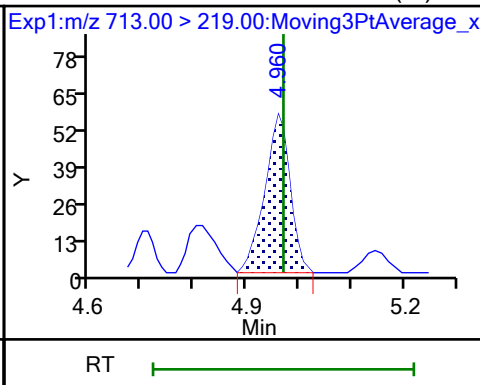
D 43 13C2 PFTeDA



42 Perfluorotetradecanoic acid (M)



42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

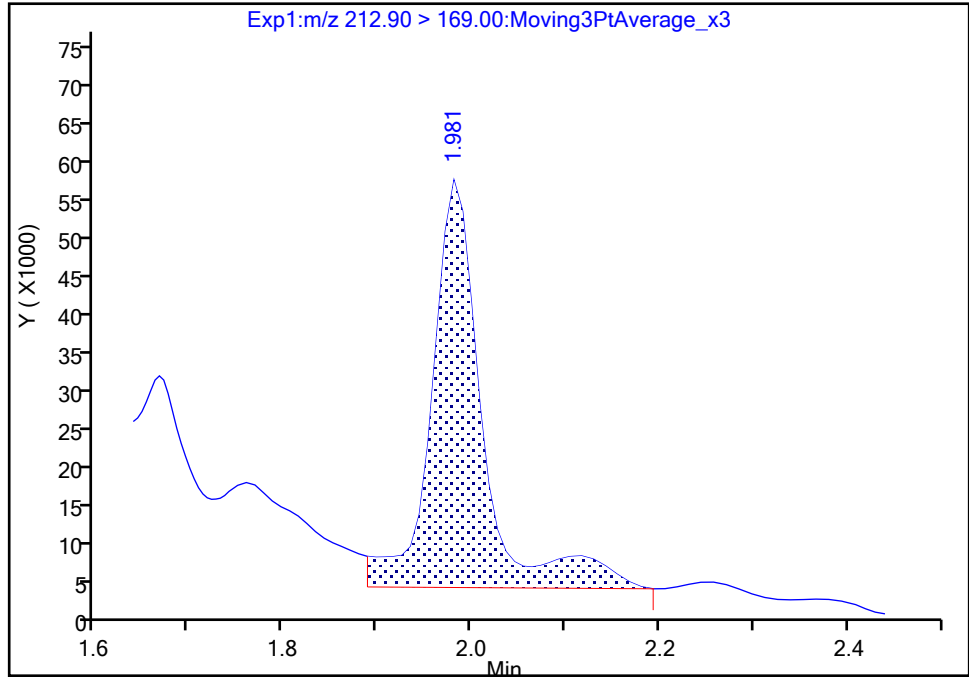
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Injection Date:	27-Oct-2020 20:48:34	Instrument ID:	LC812		
Lims ID:	480-176996-C-9-A	Lab Sample ID:	200-176996-9		
Client ID:	DUPLICATE				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	28
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

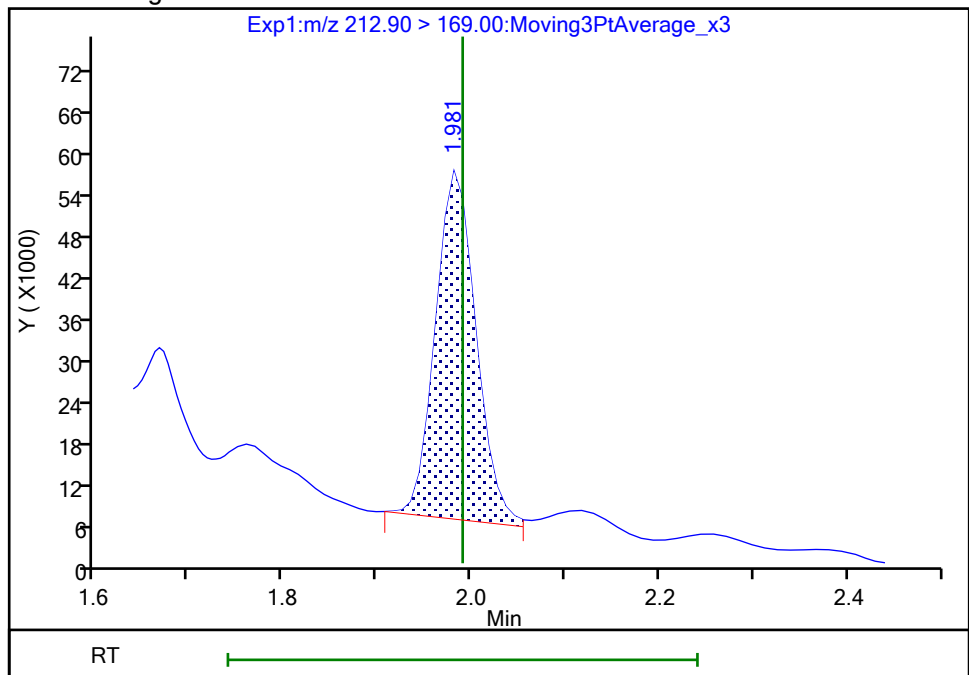
RT: 1.98
Area: 202234
Amount: 0.406026
Amount Units: ng/ml

Processing Integration Results



RT: 1.98
Area: 150451
Amount: 0.302061
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 13:12:28

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

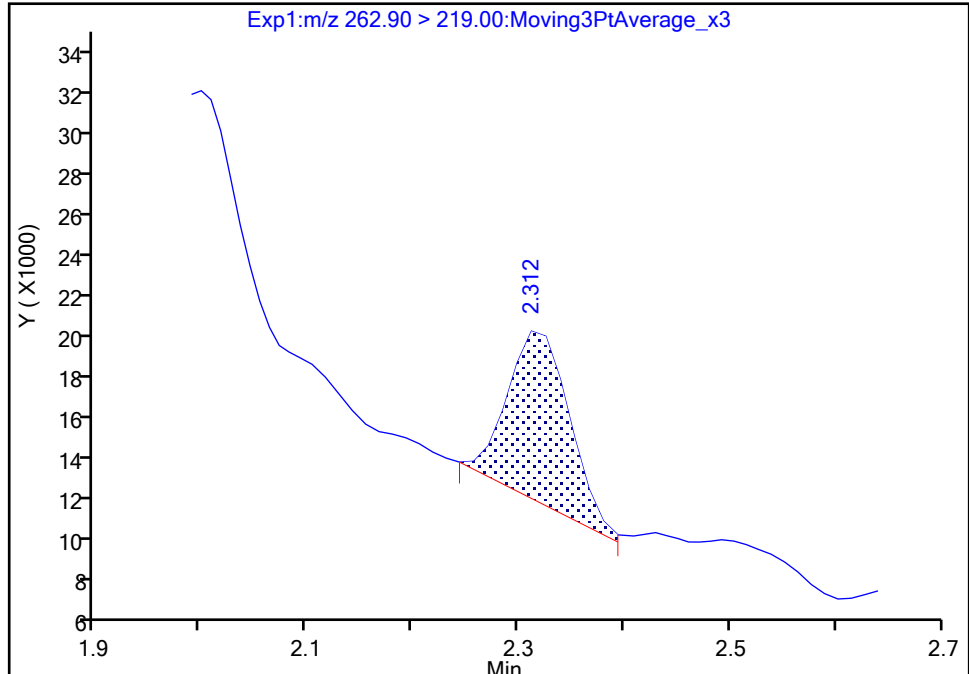
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Lims ID:	480-176996-C-9-A	Lab Sample ID:	200-176996-9		
Client ID:	DUPLICATE				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	28
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

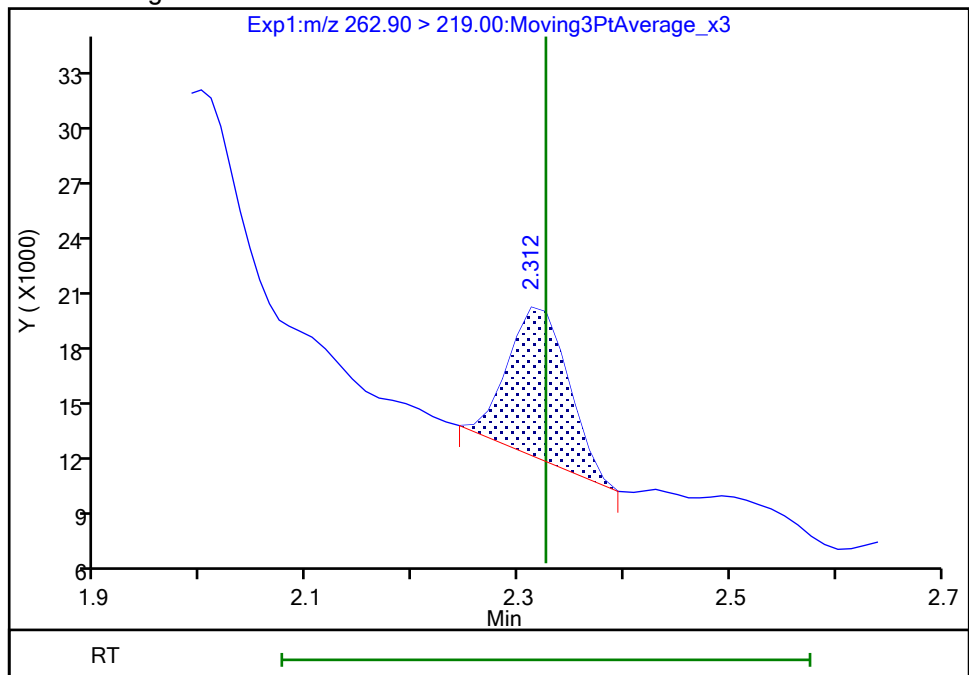
RT: 2.31
Area: 34173
Amount: 0.067829
Amount Units: ng/ml

Processing Integration Results



RT: 2.31
Area: 32578
Amount: 0.064664
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:19:59

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

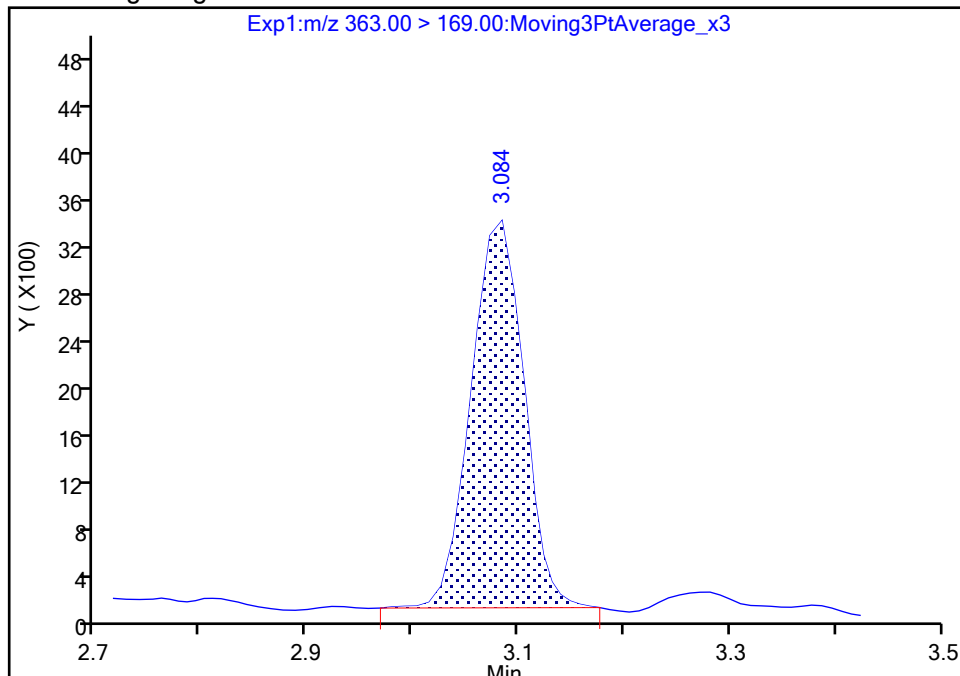
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Client ID:	DUPLICATE				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	28
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

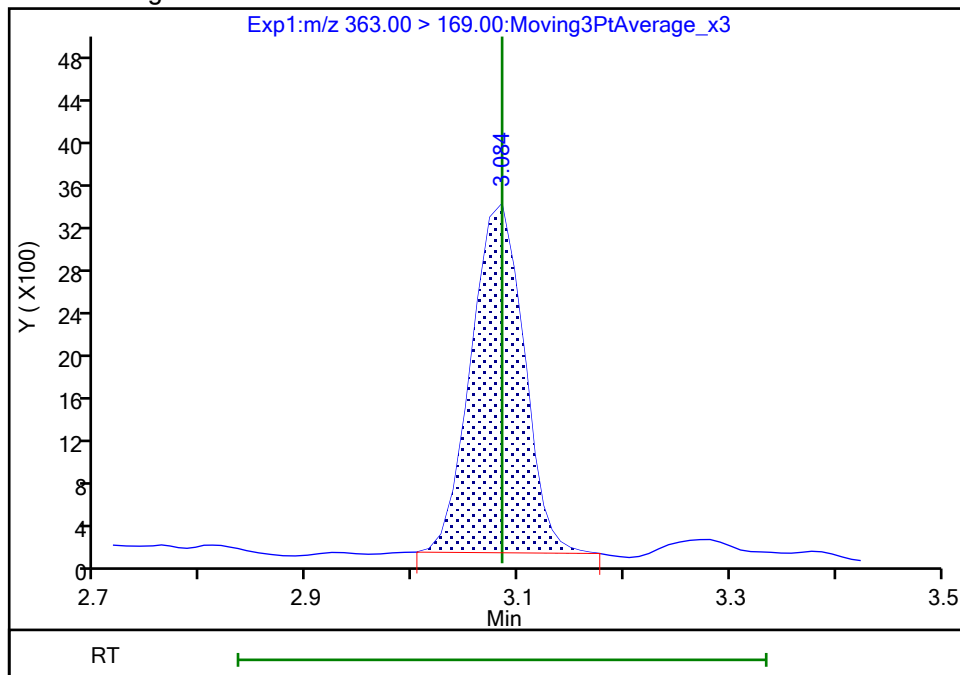
RT: 3.08
Area: 11477
Amount: 0.078367
Amount Units: ng/ml

Processing Integration Results



RT: 3.08
Area: 11370
Amount: 0.080285
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:20:20

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

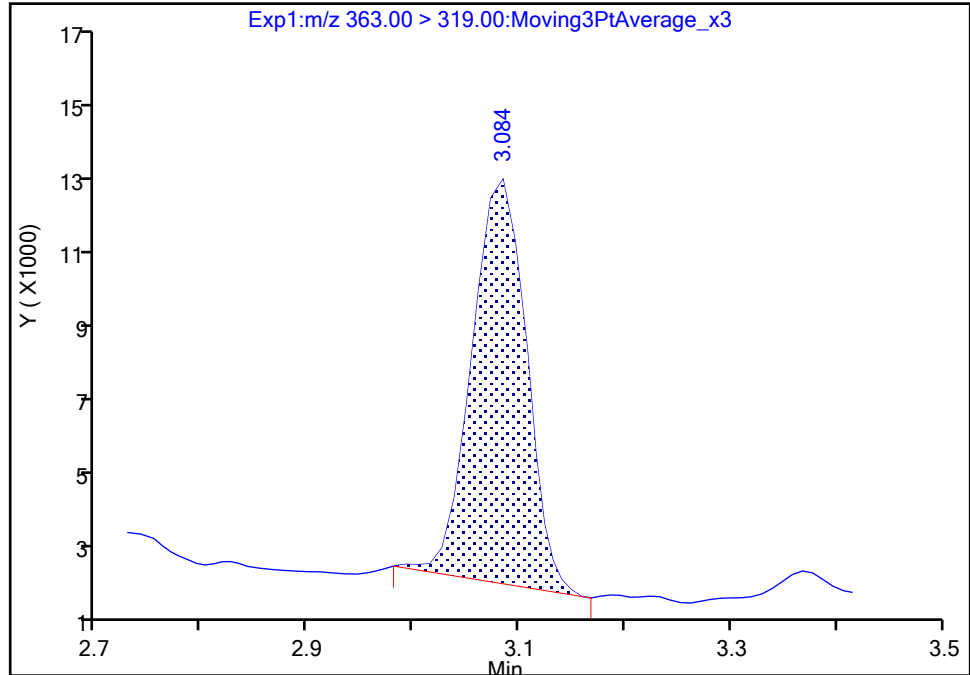
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Lims ID:	480-176996-C-9-A	Lab Sample ID:	200-176996-9
Client ID:	DUPLICATE		
Operator ID:	lc812tech	ALS Bottle#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL
Column:	C-18 (4.60 mm)	Detector	EXP1
		Worklist Smp#:	28

10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

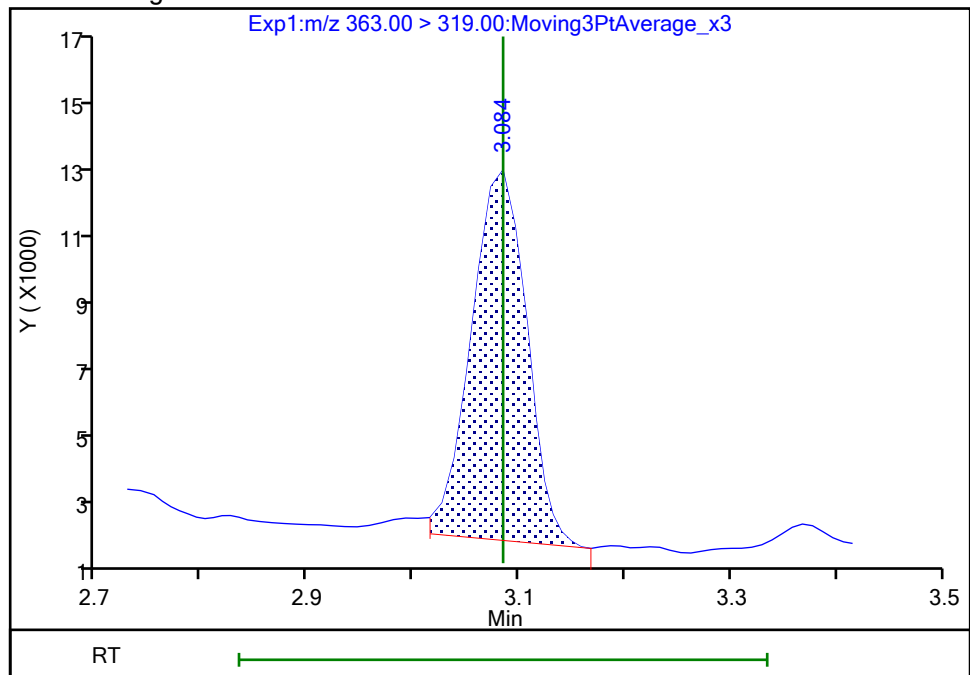
RT: 3.08
Area: 38156
Amount: 0.078367
Amount Units: ng/ml

Processing Integration Results



RT: 3.08
Area: 39090
Amount: 0.080285
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 13:12:51

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 477 of 906

Eurofins TestAmerica, Burlington

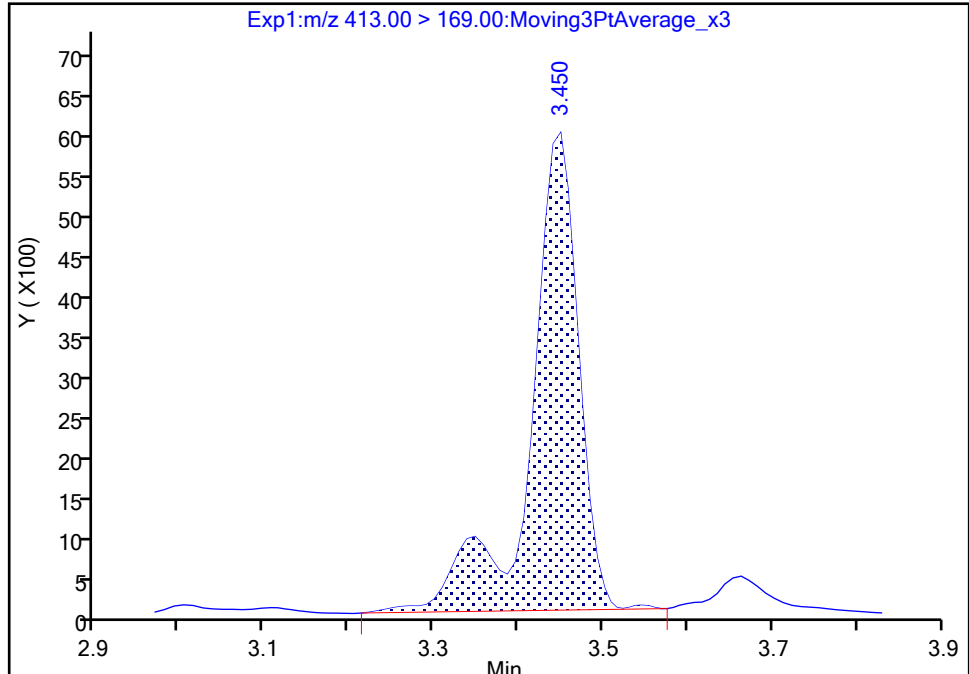
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Injection Date: 27-Oct-2020 20:48:34 Instrument ID: LC812
Lims ID: 480-176996-C-9-A Lab Sample ID: 200-176996-9
Client ID: DUPLICATE
Operator ID: lc812tech ALS Bottle#: 25 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

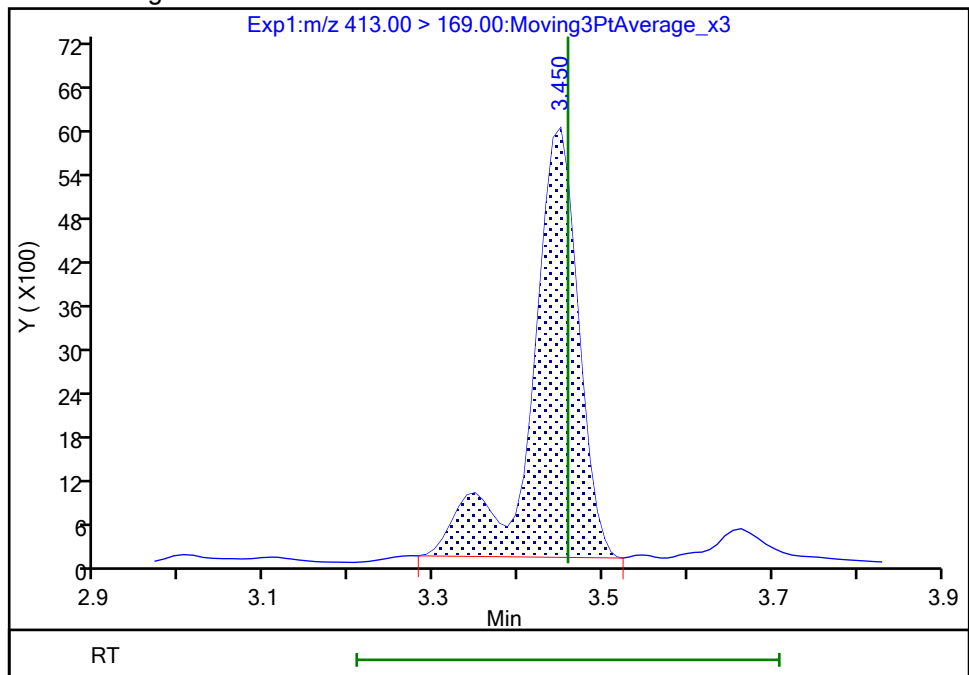
RT: 3.45
Area: 23668
Amount: 0.100363
Amount Units: ng/ml

Processing Integration Results



RT: 3.45
Area: 22804
Amount: 0.100363
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:20:47

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

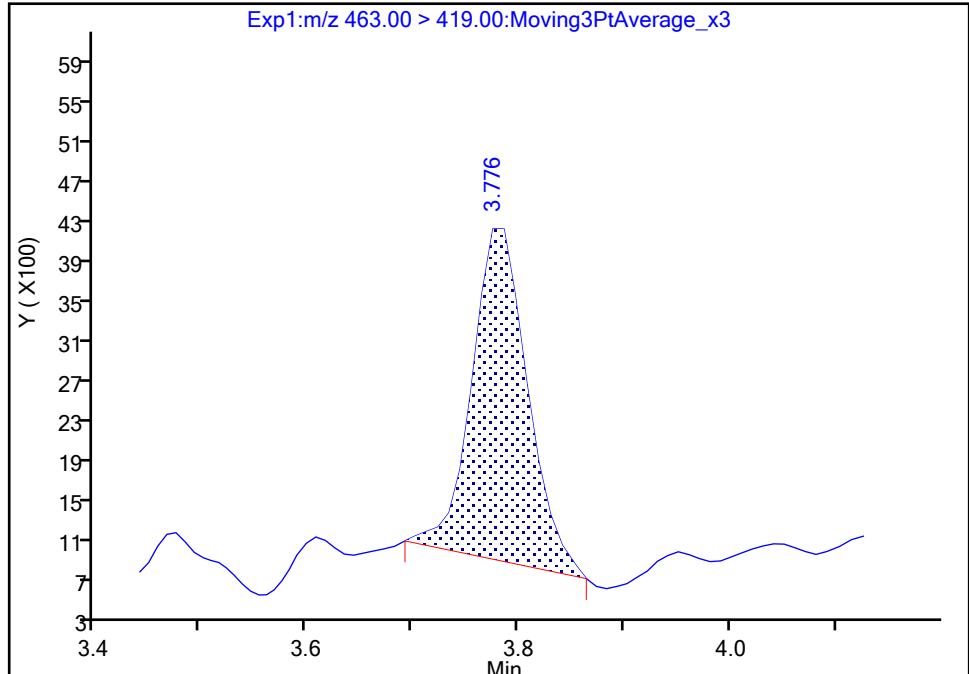
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Injection Date: 27-Oct-2020 20:48:34 Instrument ID: LC812
Lims ID: 480-176996-C-9-A Lab Sample ID: 200-176996-9
Client ID: DUPLICATE
Operator ID: lc812tech ALS Bottle#: 25 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

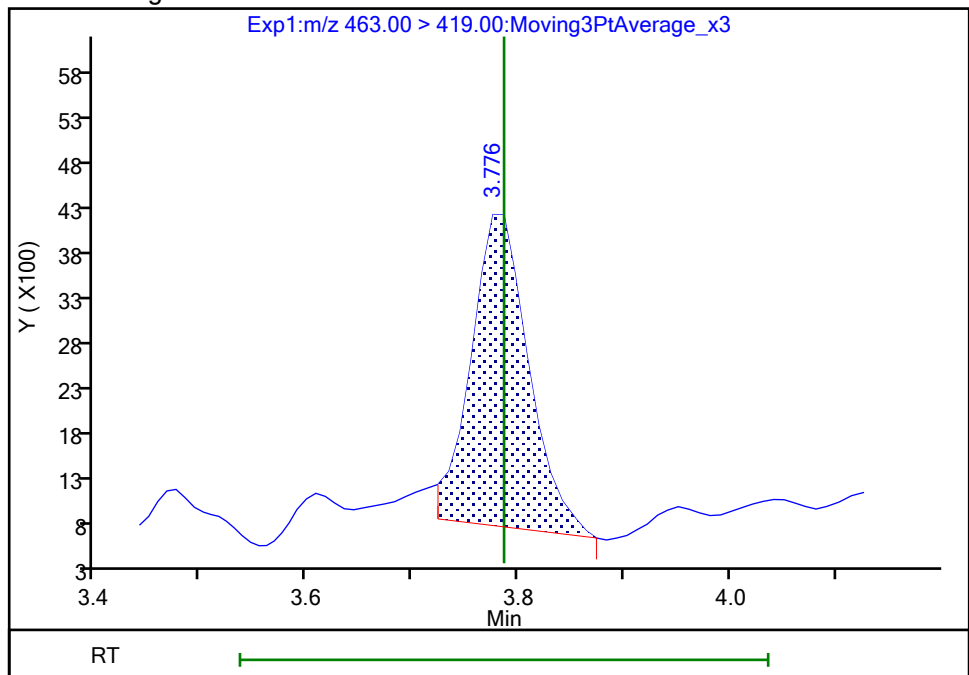
RT: 3.78
Area: 12138
Amount: 0.029736
Amount Units: ng/ml

Processing Integration Results



RT: 3.78
Area: 12966
Amount: 0.031765
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:21:23

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

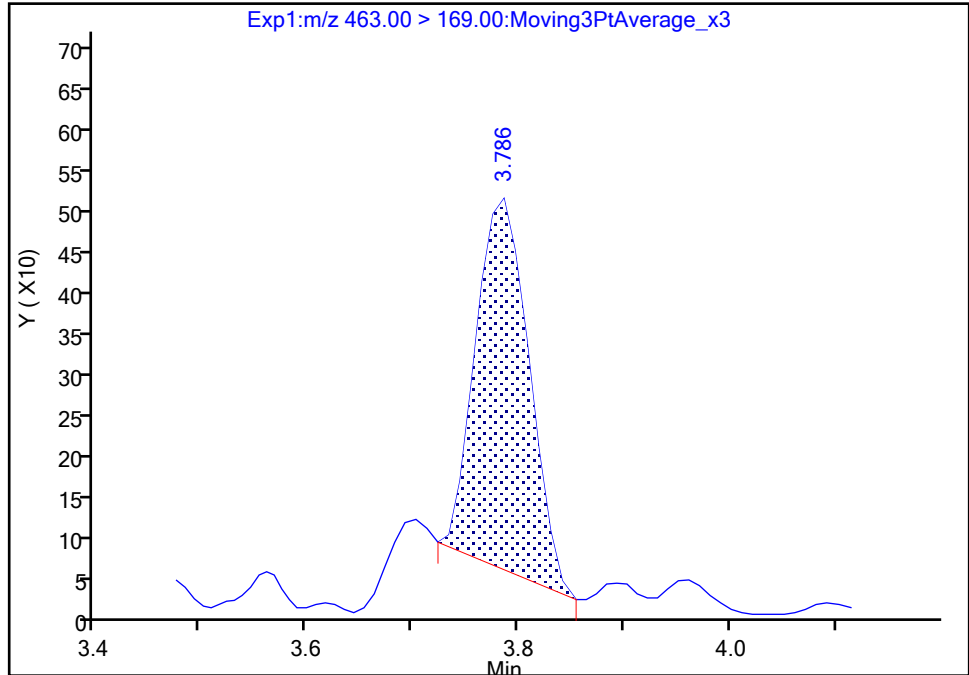
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A28.d
Injection Date: 27-Oct-2020 20:48:34 Instrument ID: LC812
Lims ID: 480-176996-C-9-A Lab Sample ID: 200-176996-9
Client ID: DUPLICATE
Operator ID: lc812tech ALS Bottle#: 25 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

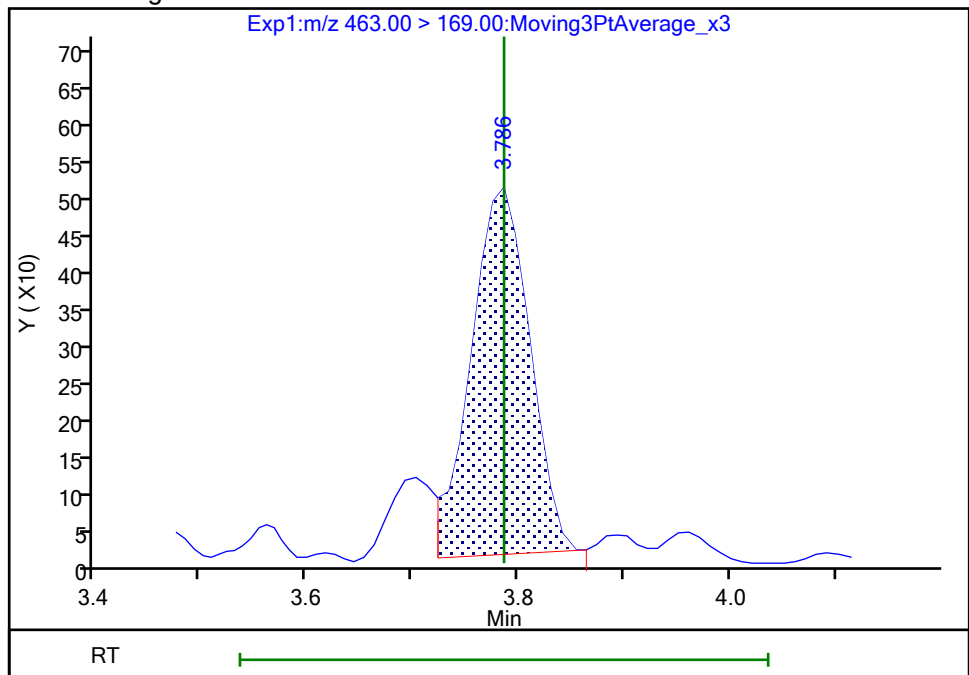
RT: 3.79
Area: 1581
Amount: 0.029736
Amount Units: ng/ml

Processing Integration Results



RT: 3.79
Area: 1902
Amount: 0.031765
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 13:13:18

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 480 of 906

Eurofins TestAmerica, Burlington

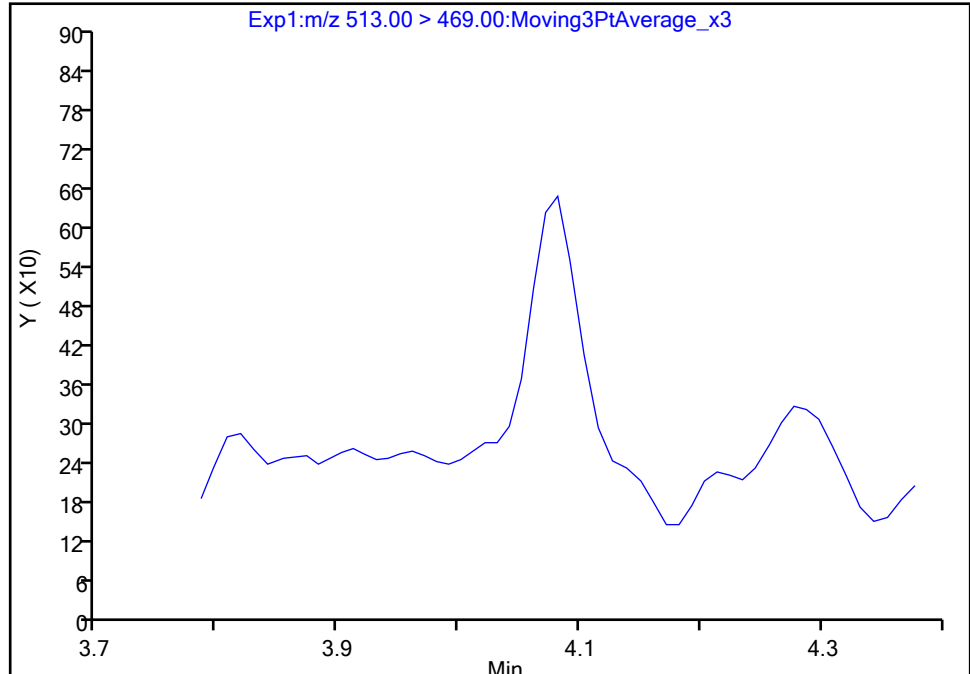
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A28.d
Injection Date: 27-Oct-2020 20:48:34 Instrument ID: LC812
Lims ID: 480-176996-C-9-A Lab Sample ID: 200-176996-9
Client ID: DUPLICATE
Operator ID: lc812tech ALS Bottle#: 25 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

24 Perfluorodecanoic acid, CAS: 335-76-2

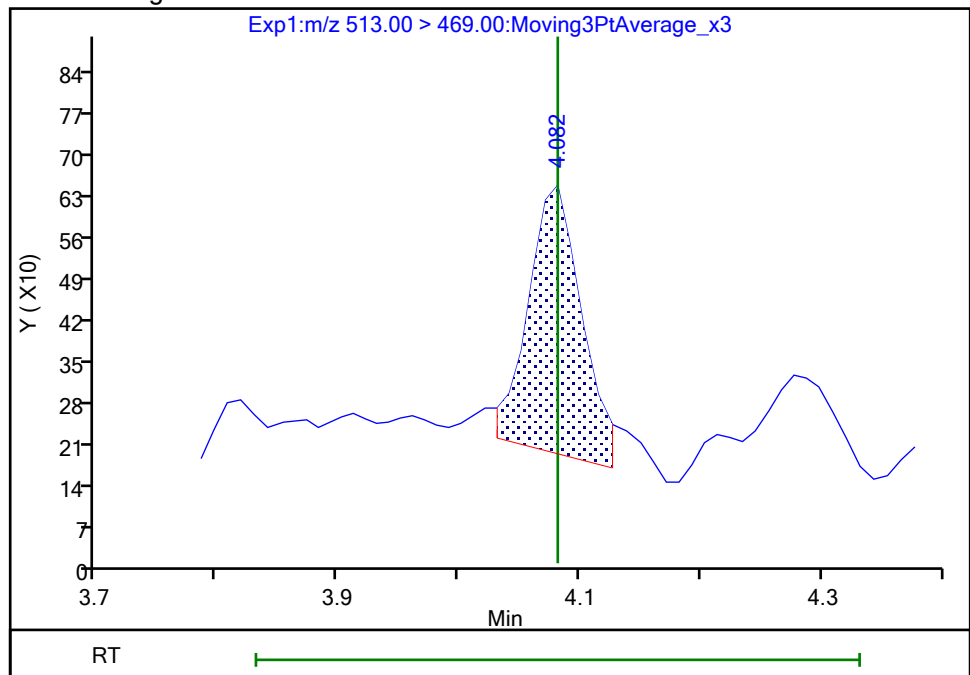
Signal: 1

Not Detected
Expected RT: 4.08

Processing Integration Results



Manual Integration Results



RT: 4.08
Area: 1382
Amount: 0.003741
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:21:36
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 481 of 906

Eurofins TestAmerica, Burlington

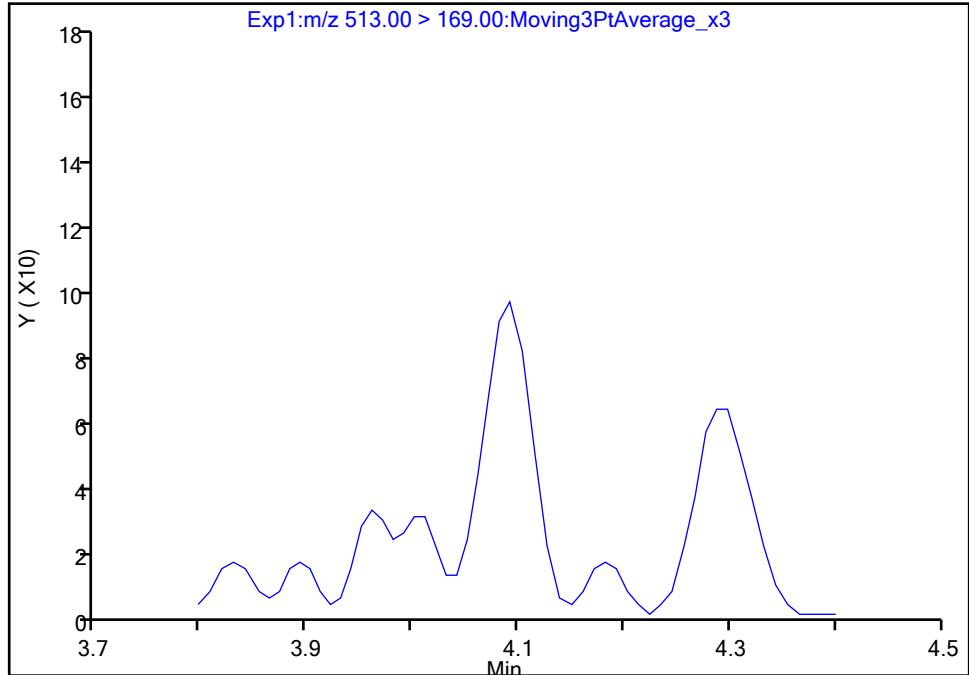
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A28.d		
Injection Date:	27-Oct-2020 20:48:34	Instrument ID:	LC812
Lims ID:	480-176996-C-9-A	Lab Sample ID:	200-176996-9
Client ID:	DUPLICATE		
Operator ID:	lc812tech	ALS Bottle#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL
Column:	C-18 (4.60 mm)	Detector:	EXP1
		Worklist Smp#:	28

24 Perfluorodecanoic acid, CAS: 335-76-2

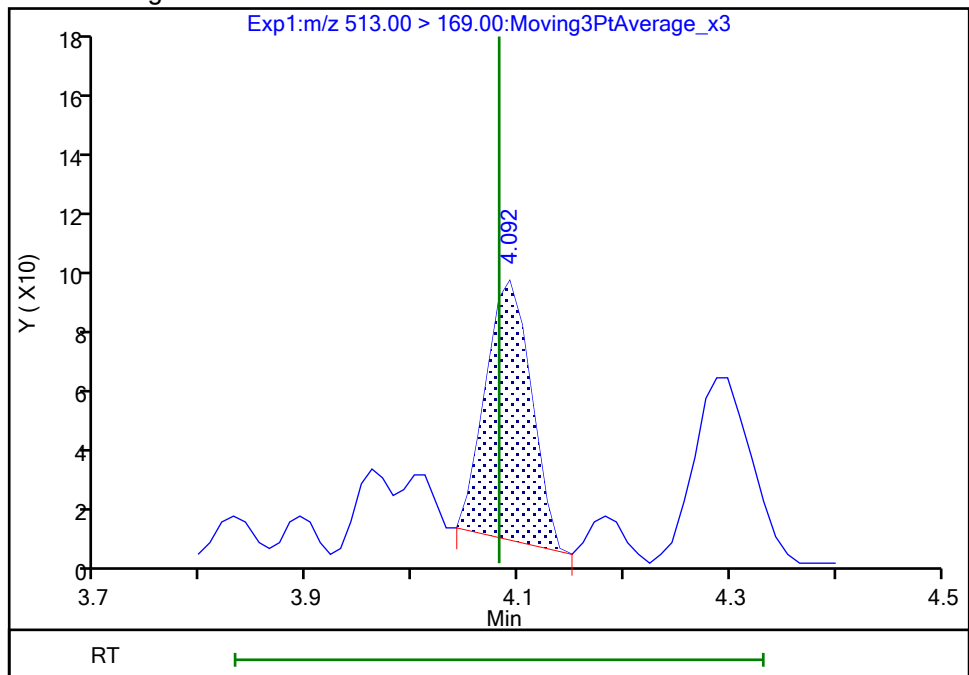
Signal: 2

Not Detected
Expected RT: 4.08

Processing Integration Results



Manual Integration Results

RT: 4.09
Area: 263
Amount: 0.003741
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:21:39

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 482 of 906

Eurofins TestAmerica, Burlington

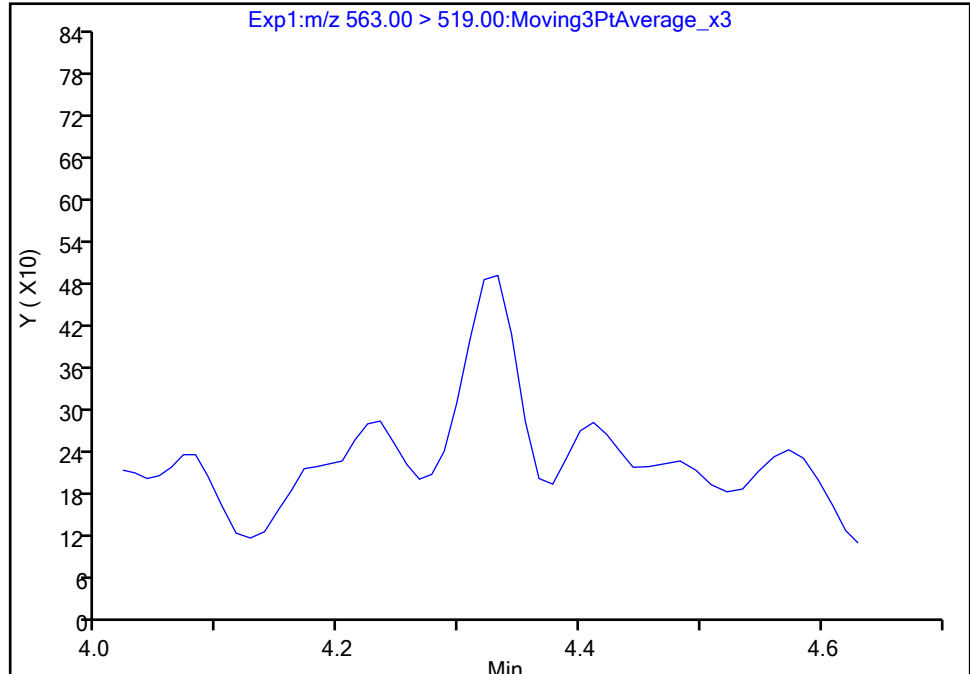
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A28.d
Injection Date: 27-Oct-2020 20:48:34 Instrument ID: LC812
Lims ID: 480-176996-C-9-A Lab Sample ID: 200-176996-9
Client ID: DUPLICATE
Operator ID: lc812tech ALS Bottle#: 25 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

31 Perfluoroundecanoic acid, CAS: 2058-94-8

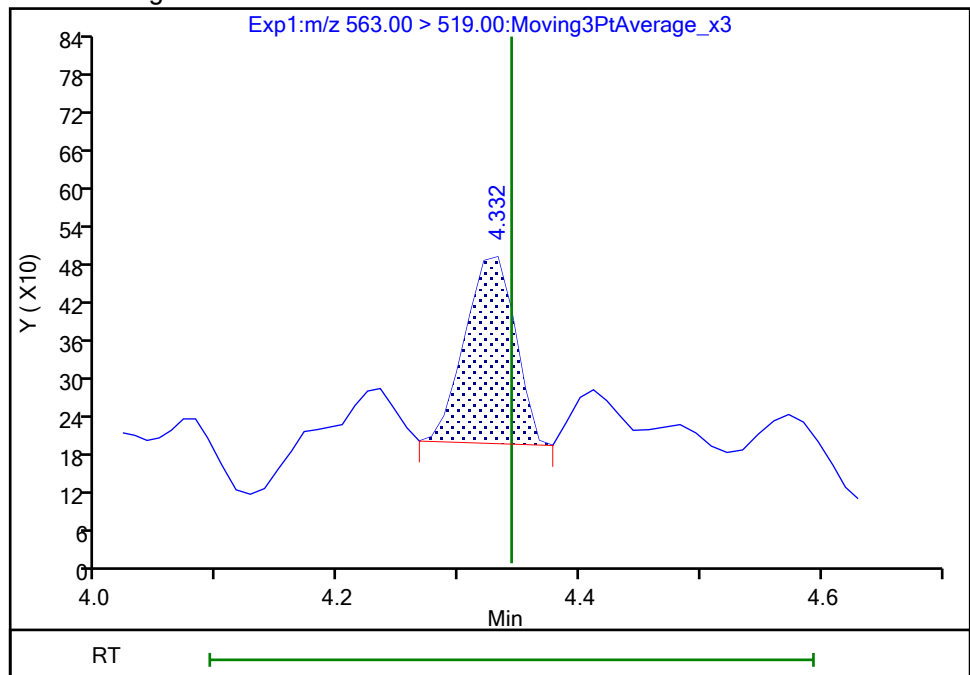
Signal: 1

Not Detected
Expected RT: 4.34

Processing Integration Results



Manual Integration Results



RT: 4.33
Area: 849
Amount: 0.003135
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:22:14

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

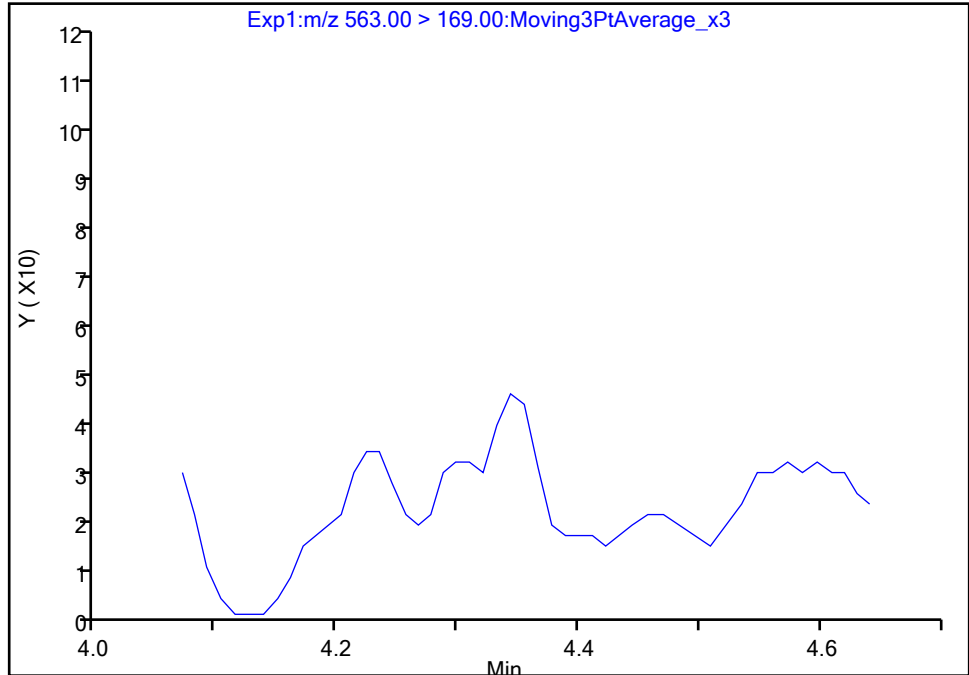
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A28.d
Injection Date: 27-Oct-2020 20:48:34 Instrument ID: LC812
Lims ID: 480-176996-C-9-A Lab Sample ID: 200-176996-9
Client ID: DUPLICATE
Operator ID: lc812tech ALS Bottle#: 25 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

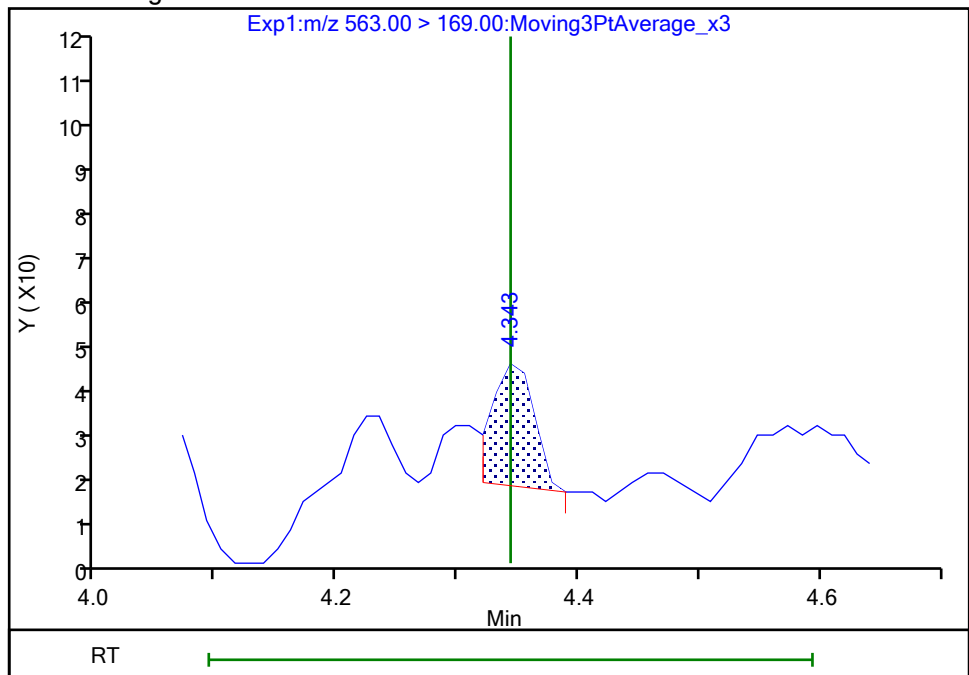
Not Detected
Expected RT: 4.34

Processing Integration Results



RT: 4.34
Area: 60
Amount: 0.003135
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:22:19

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

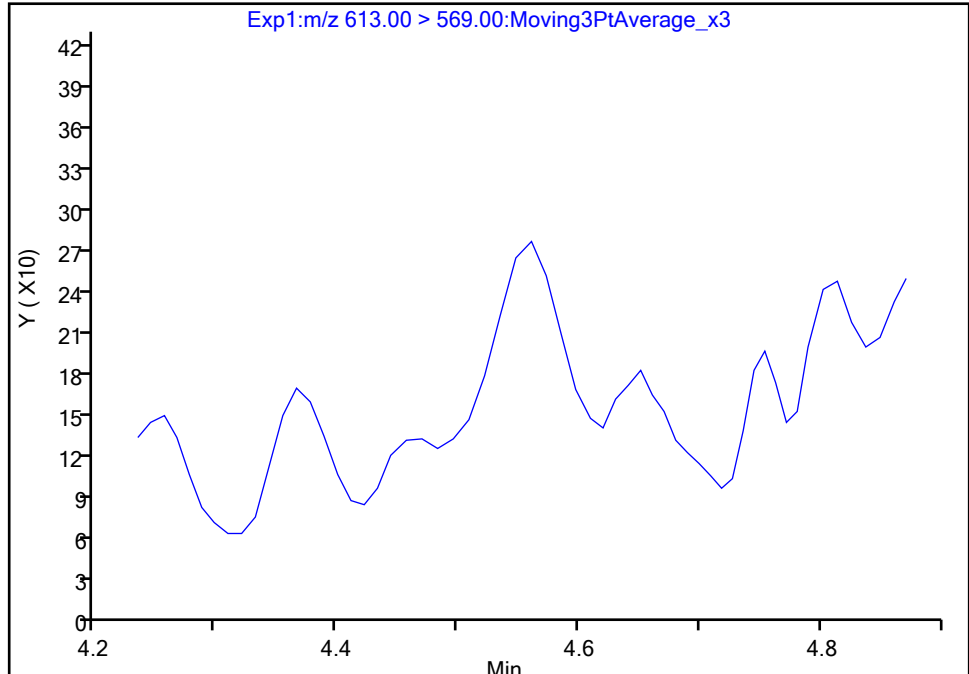
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A28.d
Injection Date: 27-Oct-2020 20:48:34 Instrument ID: LC812
Lims ID: 480-176996-C-9-A Lab Sample ID: 200-176996-9
Client ID: DUPLICATE
Operator ID: lc812tech ALS Bottle#: 25 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

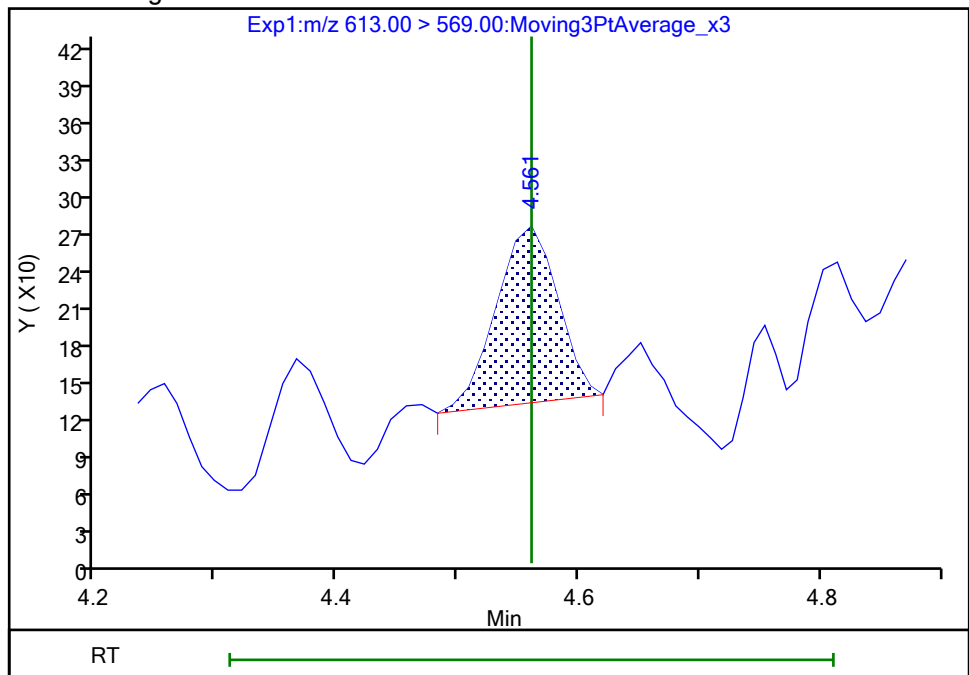
Not Detected
Expected RT: 4.56

Processing Integration Results



RT: 4.56
Area: 503
Amount: 0.002242
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:22:32

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

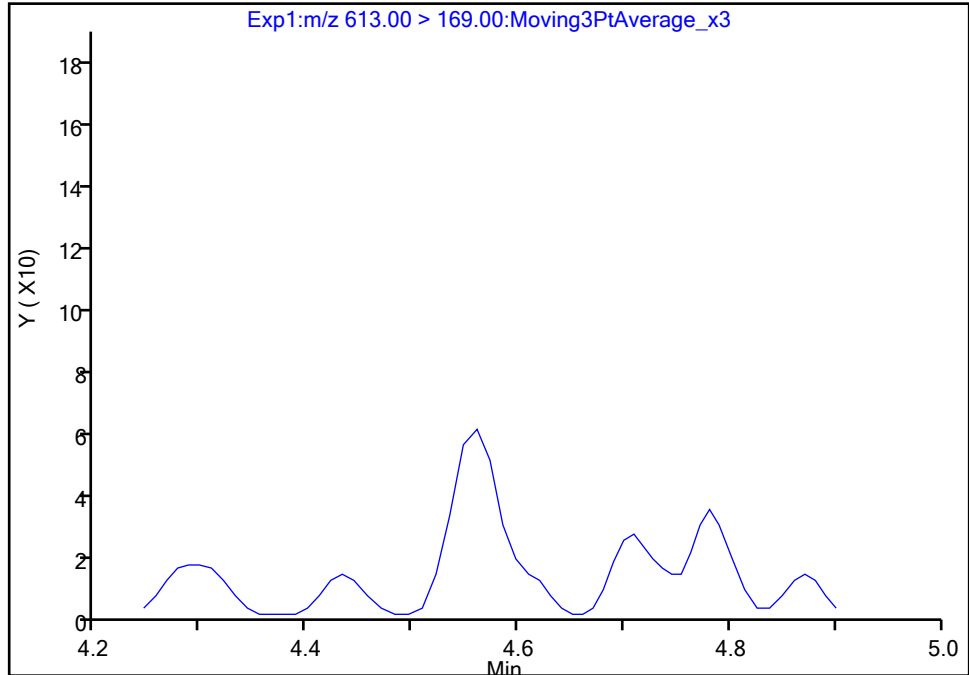
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A28.d
Injection Date: 27-Oct-2020 20:48:34 Instrument ID: LC812
Lims ID: 480-176996-C-9-A Lab Sample ID: 200-176996-9
Client ID: DUPLICATE
Operator ID: lc812tech ALS Bottle#: 25 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

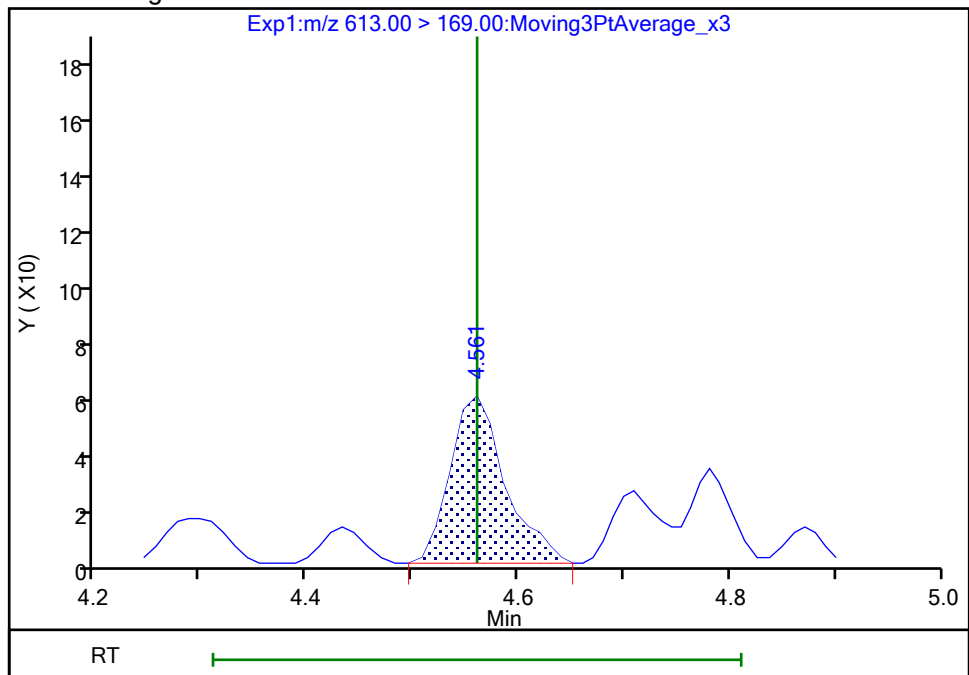
Not Detected
Expected RT: 4.56

Processing Integration Results



RT: 4.56
Area: 216
Amount: 0.002242
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:22:35

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

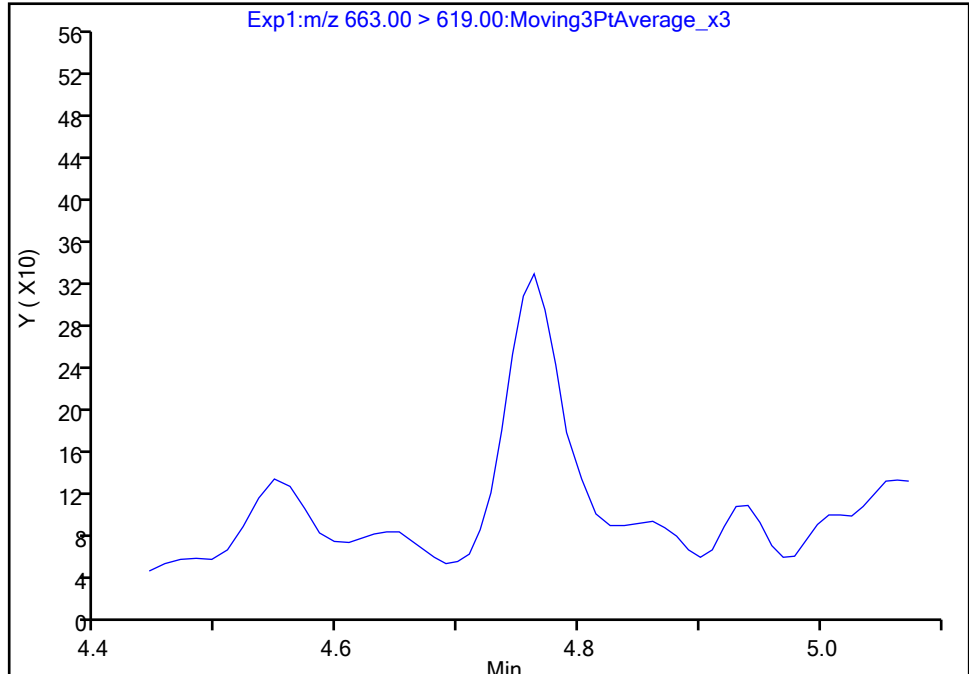
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A28.d				
Injection Date:	27-Oct-2020 20:48:34	Instrument ID:	LC812		
Lims ID:	480-176996-C-9-A	Lab Sample ID:	200-176996-9		
Client ID:	DUPLICATE				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	28
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

41 Perfluorotridecanoic acid, CAS: 72629-94-8

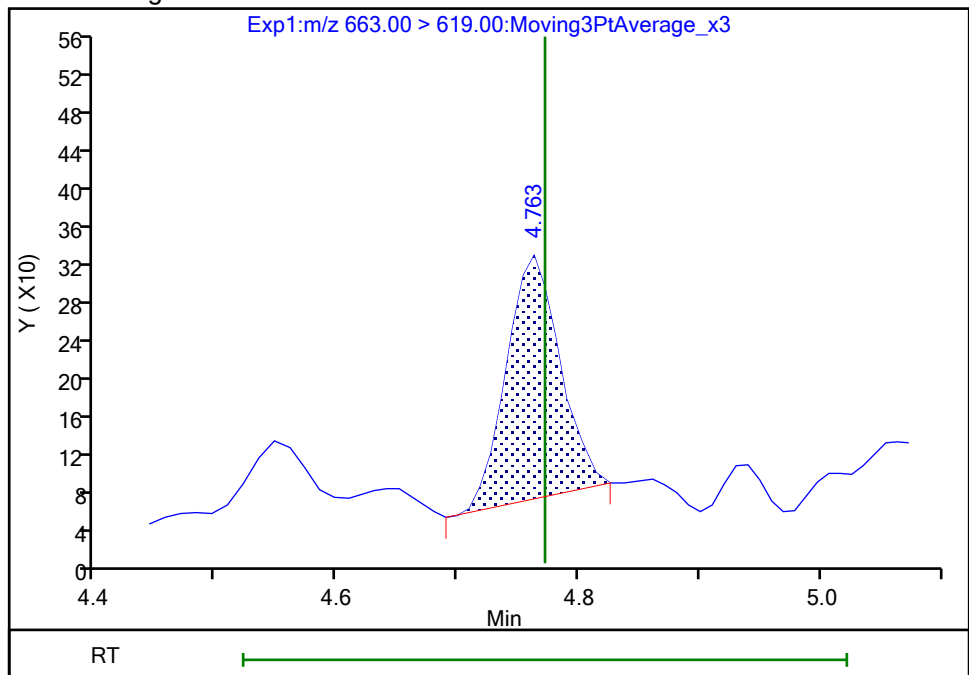
Signal: 1

Not Detected
Expected RT: 4.77

Processing Integration Results

RT: 4.76
Area: 783
Amount: 0.004110
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:22:44

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

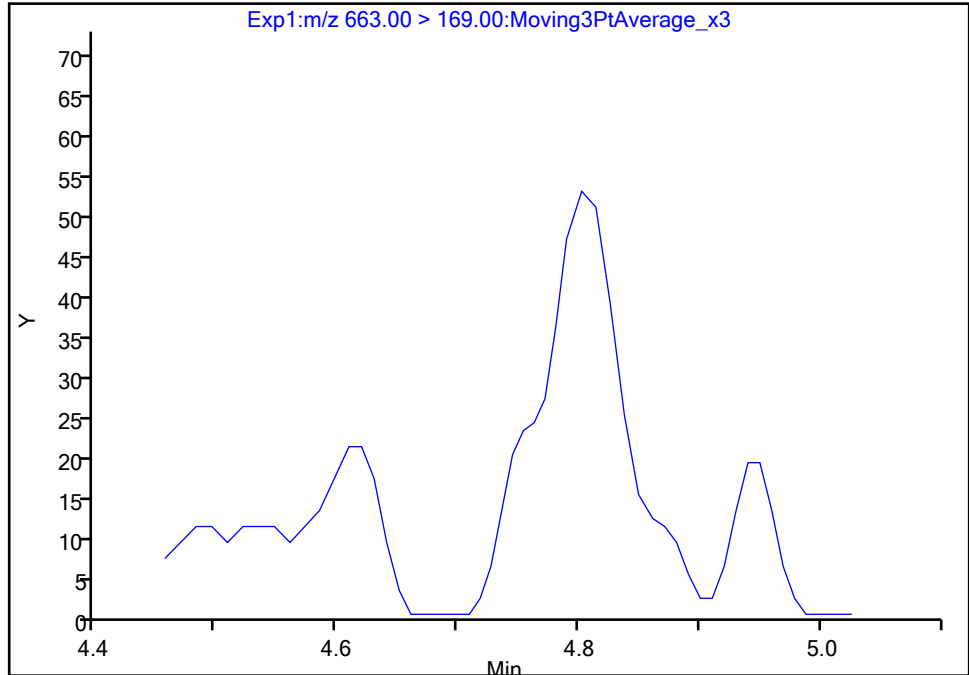
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A28.d
Injection Date: 27-Oct-2020 20:48:34 Instrument ID: LC812
Lims ID: 480-176996-C-9-A Lab Sample ID: 200-176996-9
Client ID: DUPLICATE
Operator ID: lc812tech ALS Bottle#: 25 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

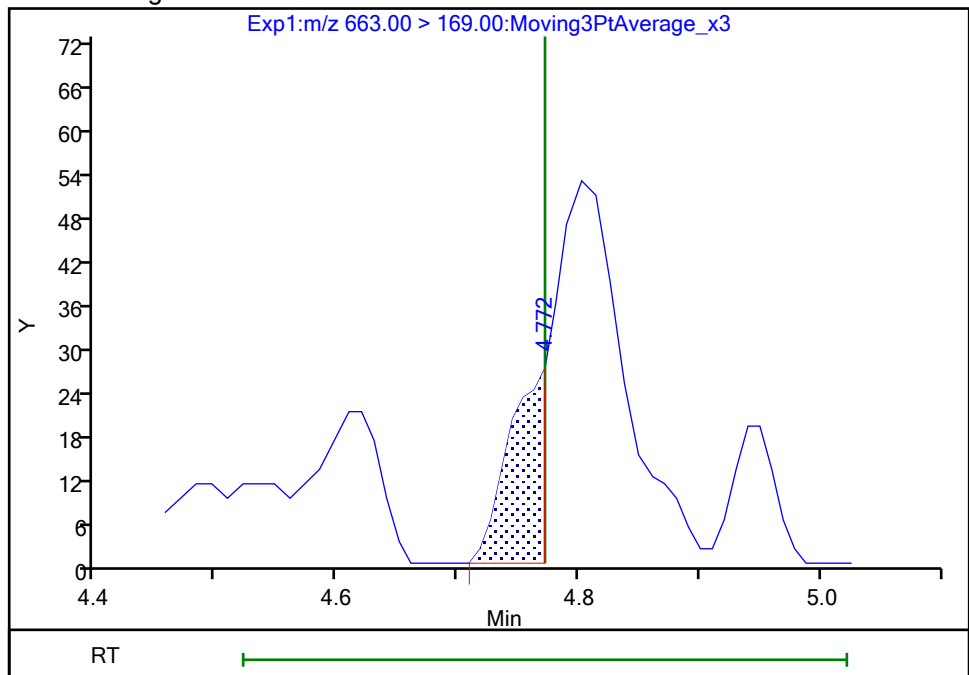
Not Detected
Expected RT: 4.77

Processing Integration Results



Manual Integration Results

RT: 4.77
Area: 54
Amount: 0.004110
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 10:22:50

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 488 of 906

Eurofins TestAmerica, Burlington

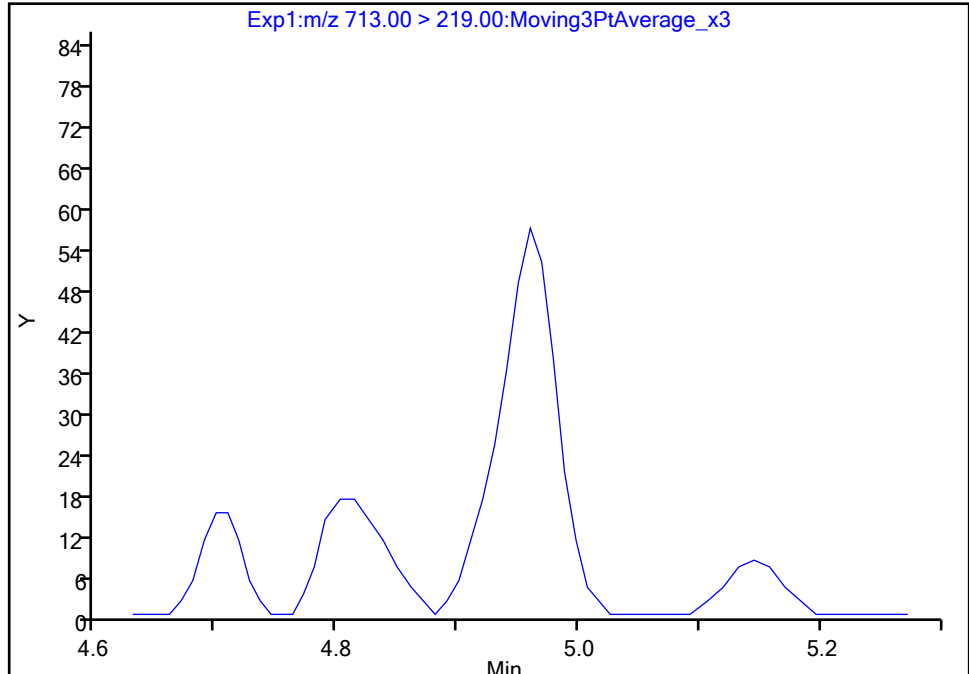
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A28.d
Injection Date: 27-Oct-2020 20:48:34 Instrument ID: LC812
Lims ID: 480-176996-C-9-A Lab Sample ID: 200-176996-9
Client ID: DUPLICATE
Operator ID: lc812tech ALS Bottle#: 25 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

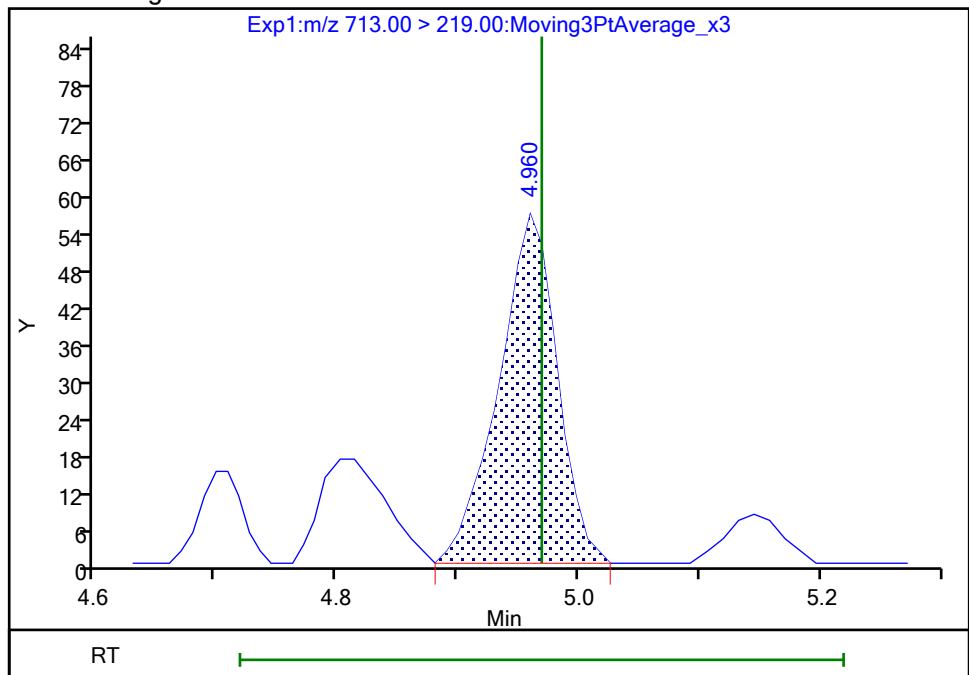
Signal: 2

Not Detected
Expected RT: 4.97

Processing Integration Results



Manual Integration Results



RT: 4.96
Area: 191
Amount: 0.007369
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:23:01

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

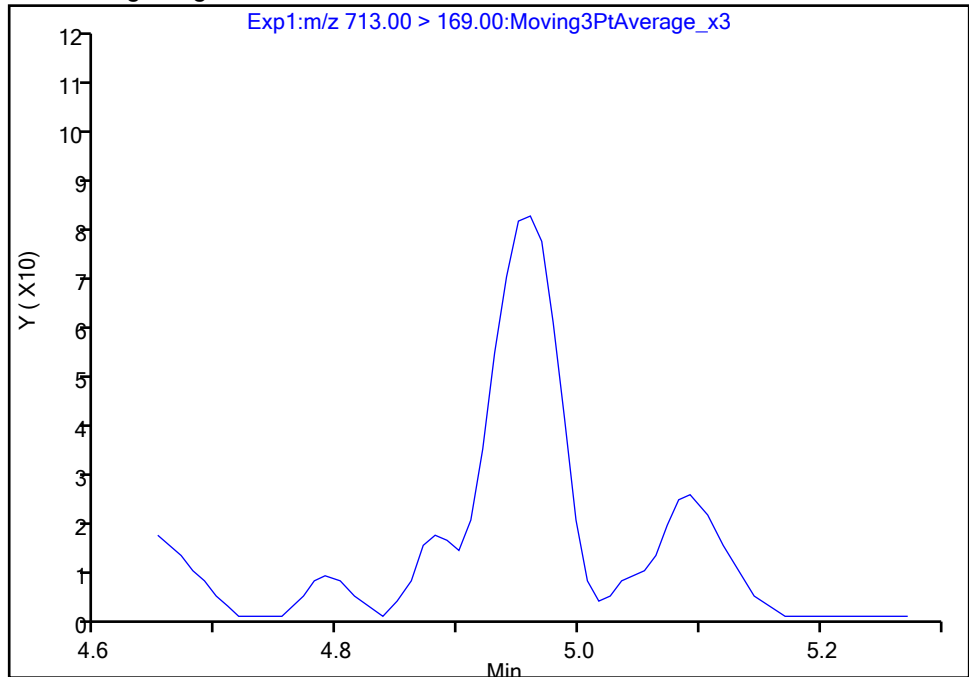
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A28.d
Injection Date: 27-Oct-2020 20:48:34 Instrument ID: LC812
Lims ID: 480-176996-C-9-A Lab Sample ID: 200-176996-9
Client ID: DUPLICATE
Operator ID: lc812tech ALS Bottle#: 25 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

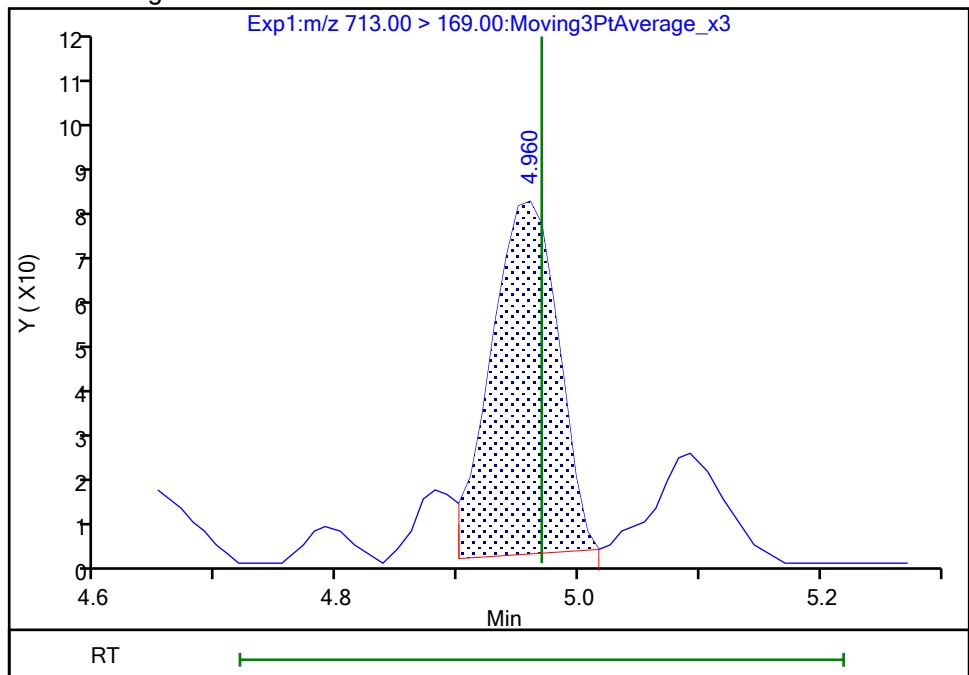
Not Detected
Expected RT: 4.97

Processing Integration Results



RT: 4.96
Area: 295
Amount: 0.007369
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 13:13:51

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 490 of 906

Eurofins TestAmerica, Burlington

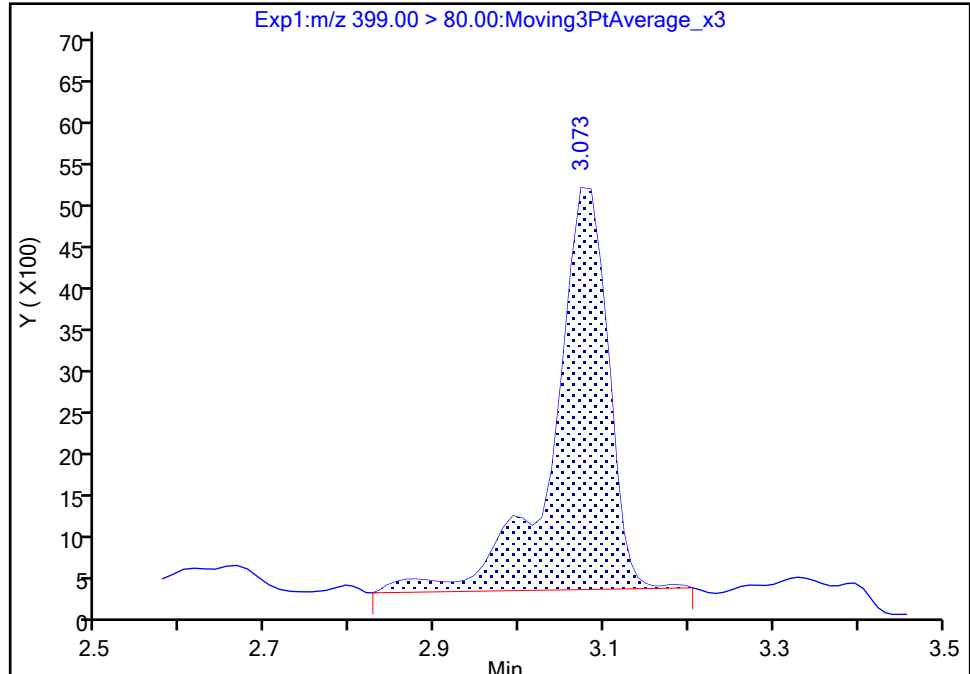
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A28.d				
Injection Date:	27-Oct-2020 20:48:34	Instrument ID:	LC812		
Lims ID:	480-176996-C-9-A	Lab Sample ID:	200-176996-9		
Client ID:	DUPLICATE				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	28
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

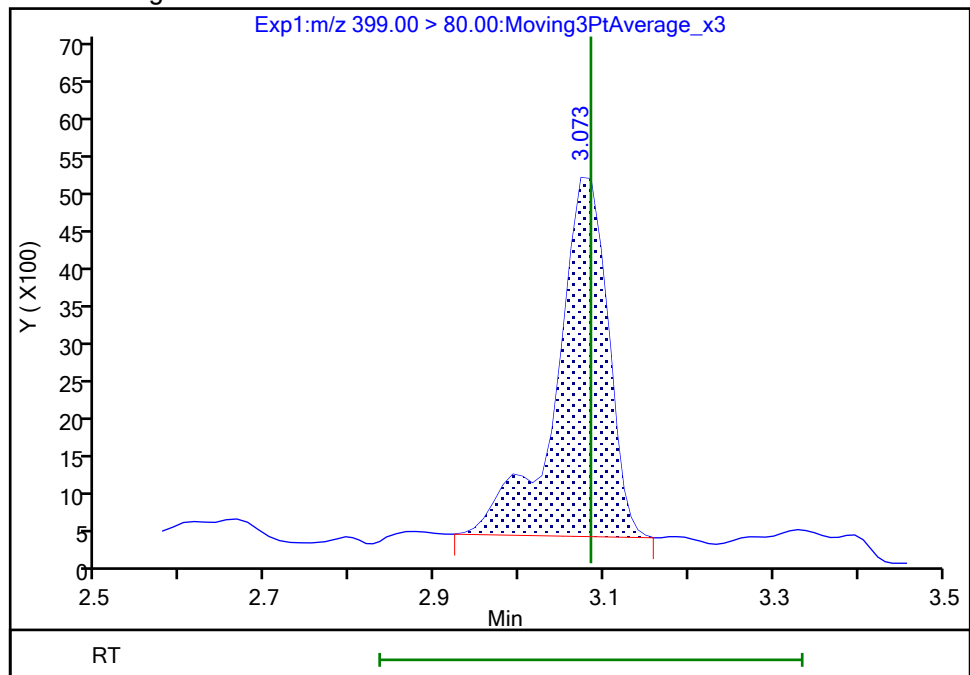
RT: 3.07
Area: 22221
Amount: 0.041119
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 20472
Amount: 0.037883
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:20:10

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

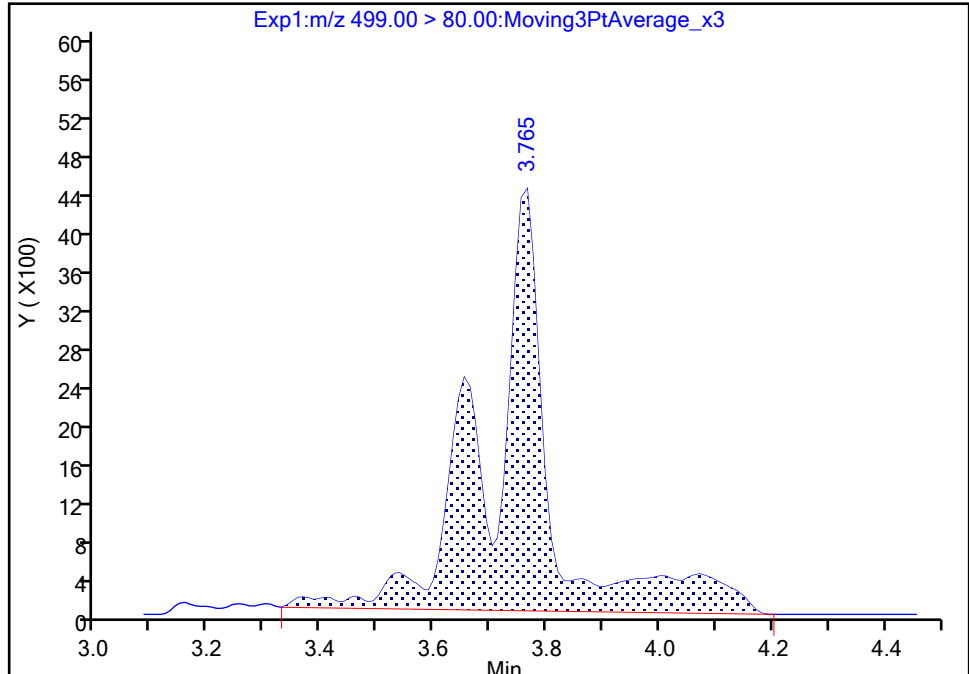
Data File:	\\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A28.d				
Injection Date:	27-Oct-2020 20:48:34	Instrument ID:	LC812		
Lims ID:	480-176996-C-9-A	Lab Sample ID:	200-176996-9		
Client ID:	DUPLICATE				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	28
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

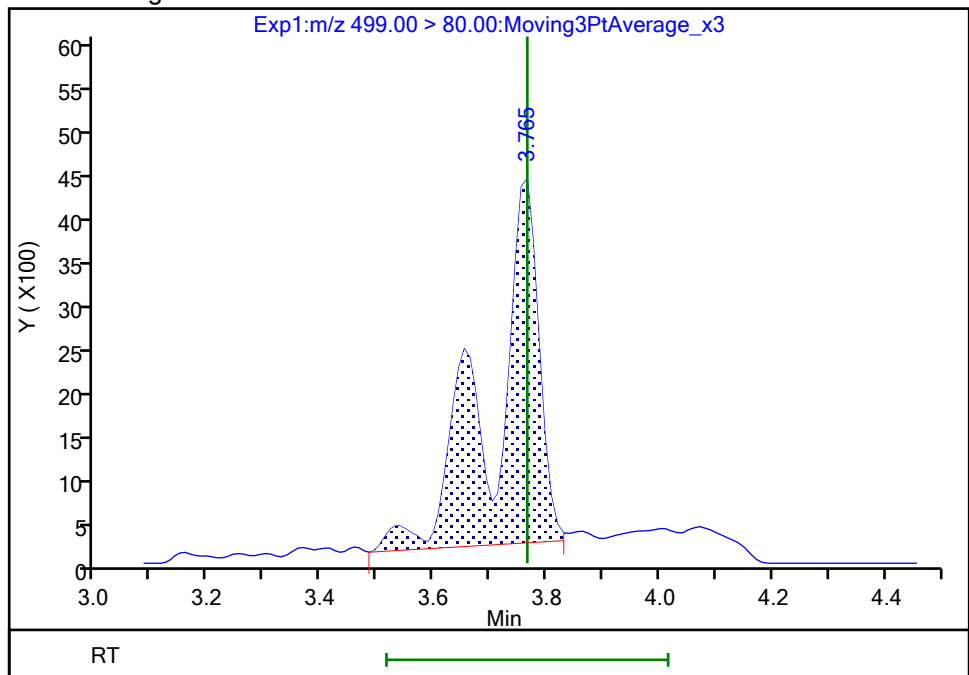
RT: 3.77
Area: 34499
Amount: 0.082746
Amount Units: ng/ml

Processing Integration Results



RT: 3.77
Area: 24175
Amount: 0.057984
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:21:03

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A28.d

Injection Date: 27-Oct-2020 20:48:34

Instrument ID: LC812

Lims ID: 480-176996-C-9-A

Lab Sample ID: 200-176996-9

Client ID: DUPLICATE

Operator ID: lc812tech

ALS Bottle#:

25

Worklist Smp#:

28

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

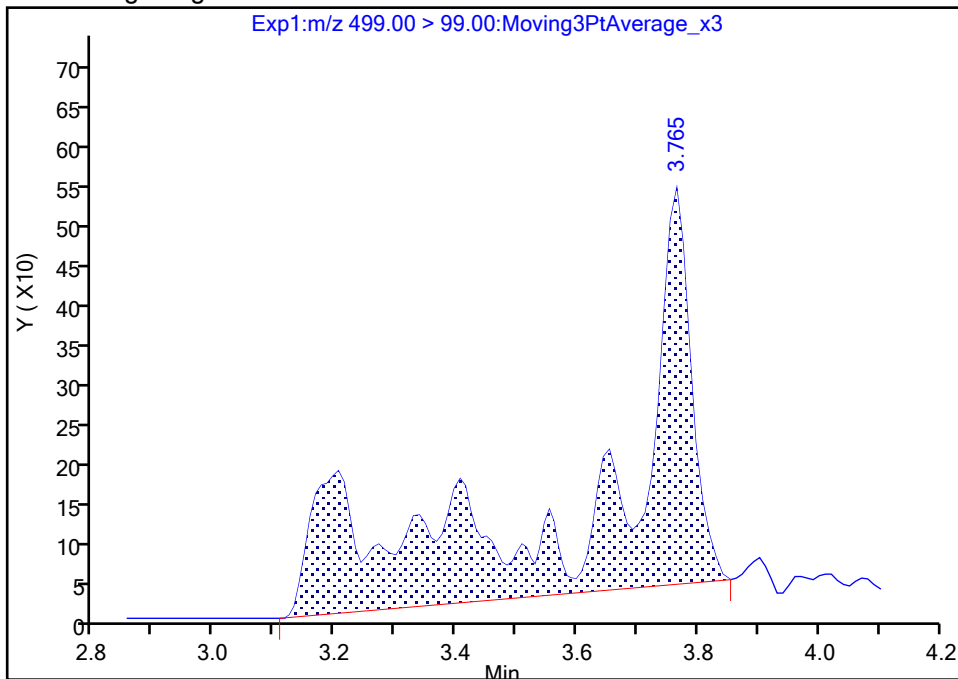
EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

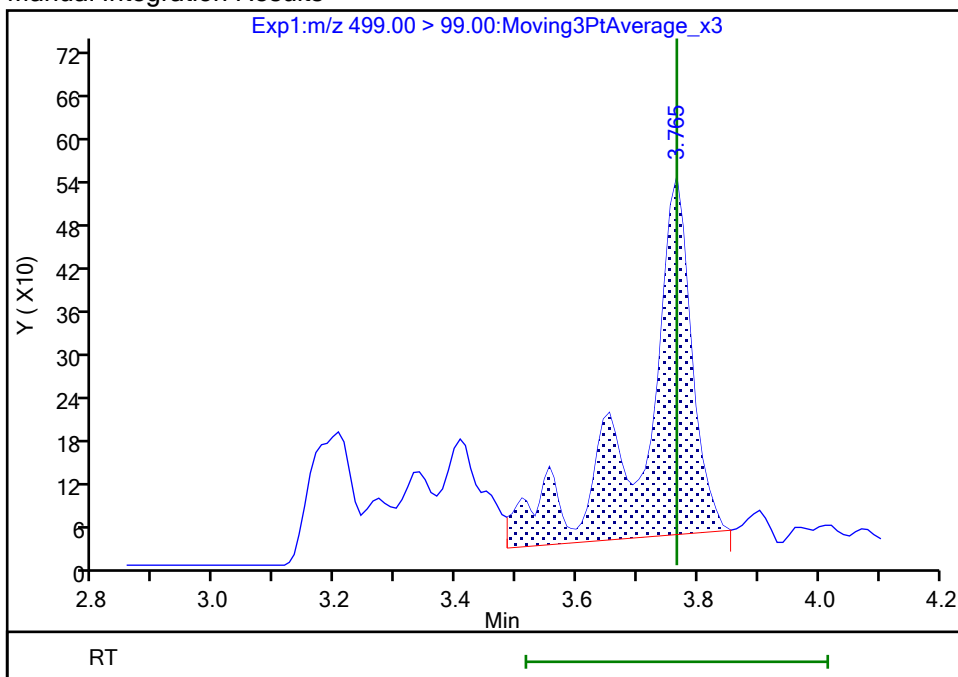
RT: 3.77
Area: 5021
Amount: 0.082746
Amount Units: ng/ml

Processing Integration Results



RT: 3.77
Area: 2860
Amount: 0.057984
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:21:12

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

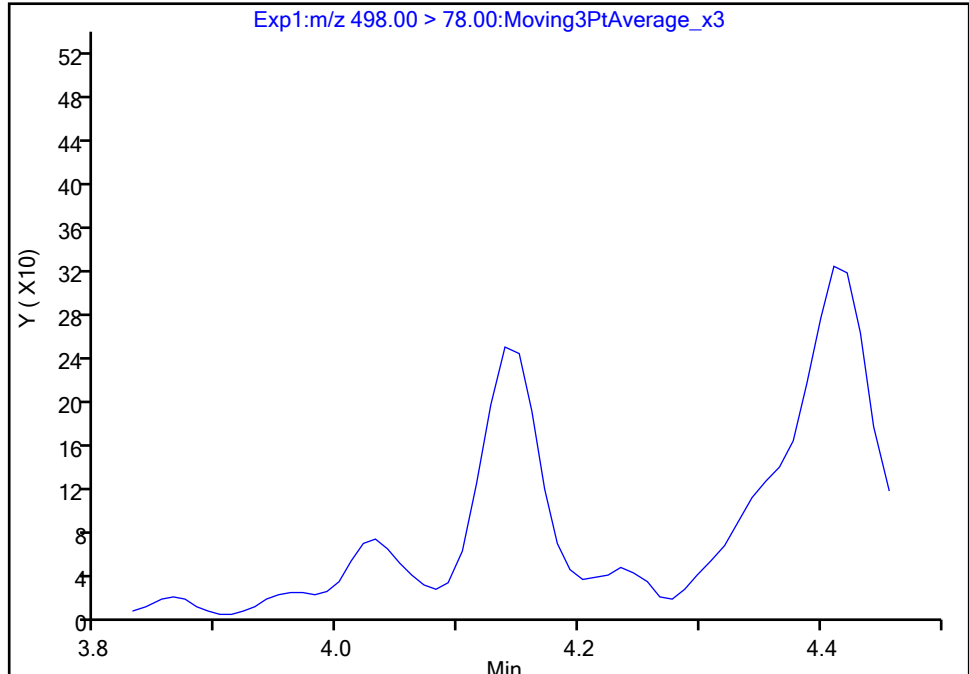
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A28.d
Injection Date: 27-Oct-2020 20:48:34 Instrument ID: LC812
Lims ID: 480-176996-C-9-A Lab Sample ID: 200-176996-9
Client ID: DUPLICATE
Operator ID: lc812tech ALS Bottle#: 25 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

22 Perfluorooctanesulfonamide, CAS: 754-91-6

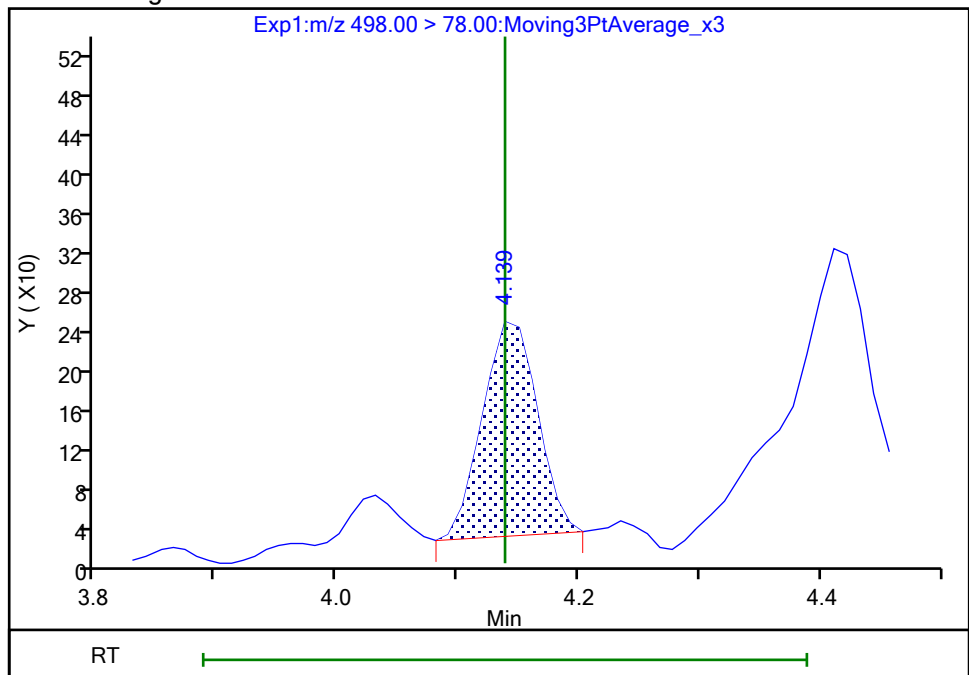
Signal: 1

Not Detected
Expected RT: 4.14

Processing Integration Results



Manual Integration Results



RT: 4.14
Area: 686
Amount: 0.001309
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:21:49

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

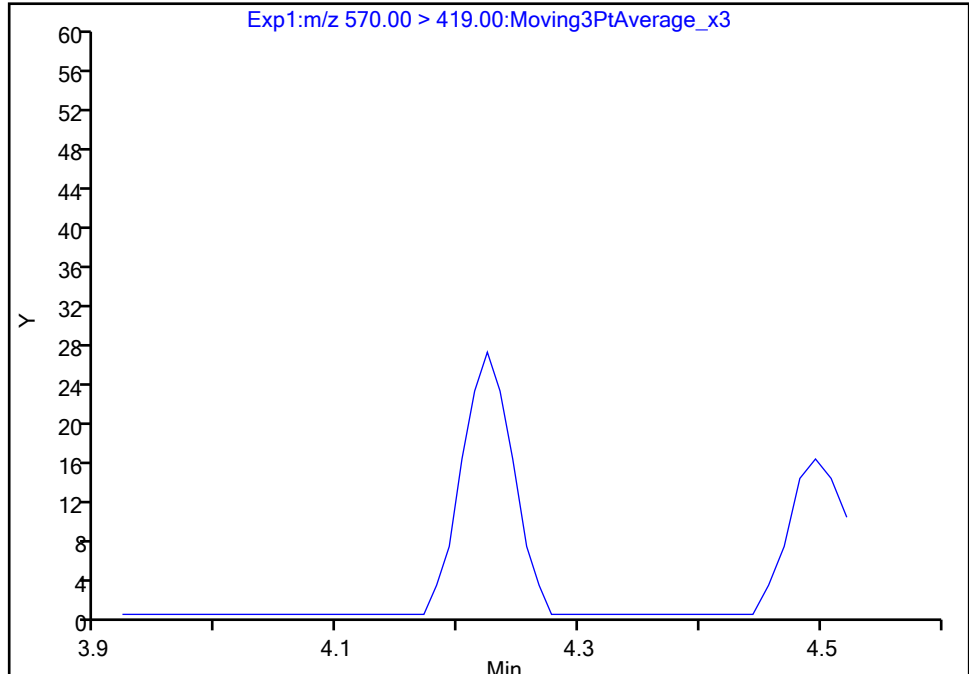
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A28.d
Injection Date: 27-Oct-2020 20:48:34 Instrument ID: LC812
Lims ID: 480-176996-C-9-A Lab Sample ID: 200-176996-9
Client ID: DUPLICATE
Operator ID: lc812tech ALS Bottle#: 25 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

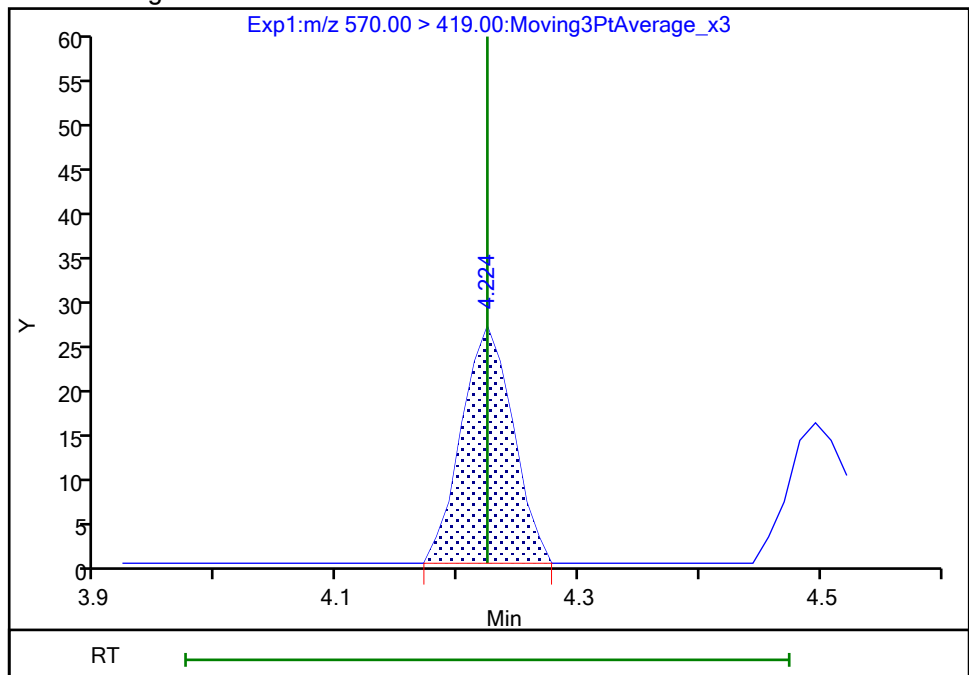
Signal: 1

Not Detected
Expected RT: 4.22

Processing Integration Results



Manual Integration Results



RT: 4.22
Area: 79
Amount: 0.004864
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:21:56

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

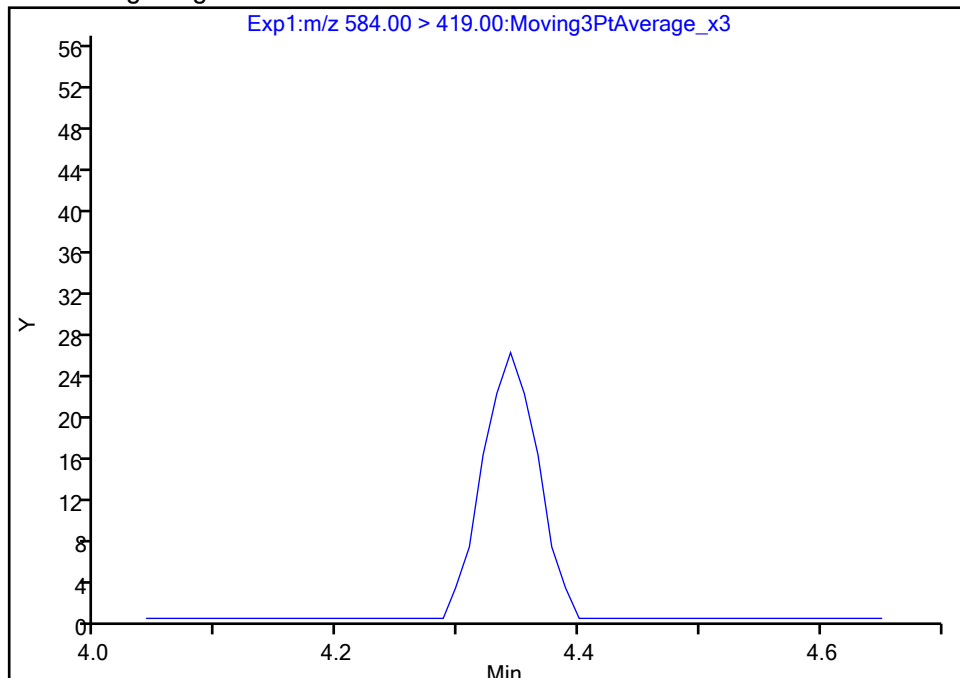
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A28.d
Injection Date: 27-Oct-2020 20:48:34 Instrument ID: LC812
Lims ID: 480-176996-C-9-A Lab Sample ID: 200-176996-9
Client ID: DUPLICATE
Operator ID: lc812tech ALS Bottle#: 25 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

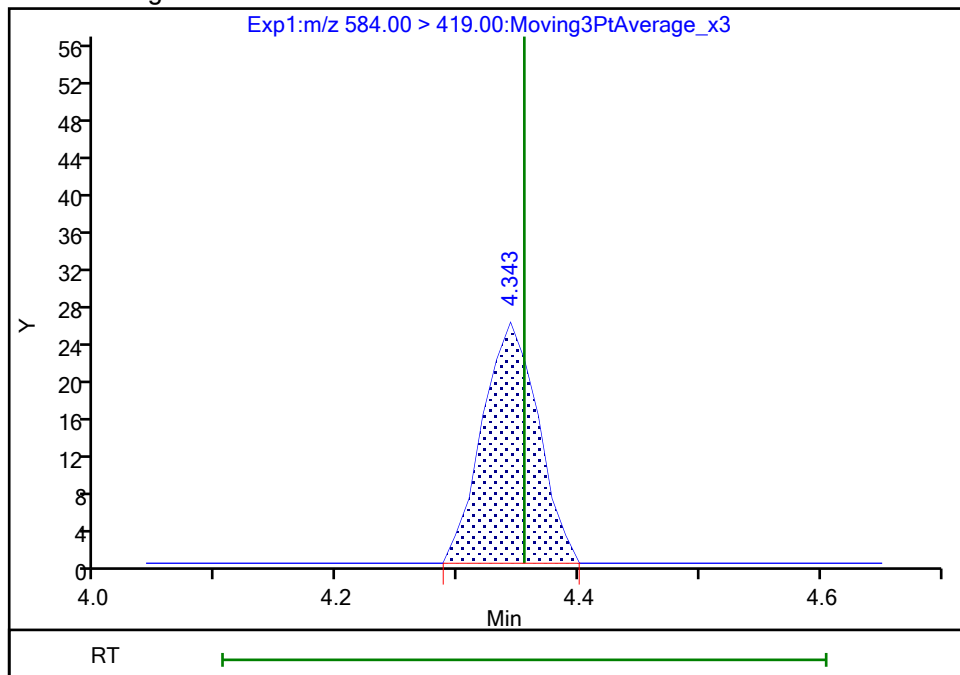
Not Detected
Expected RT: 4.35

Processing Integration Results



RT: 4.34
Area: 83
Amount: 0.004209
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:22:27

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

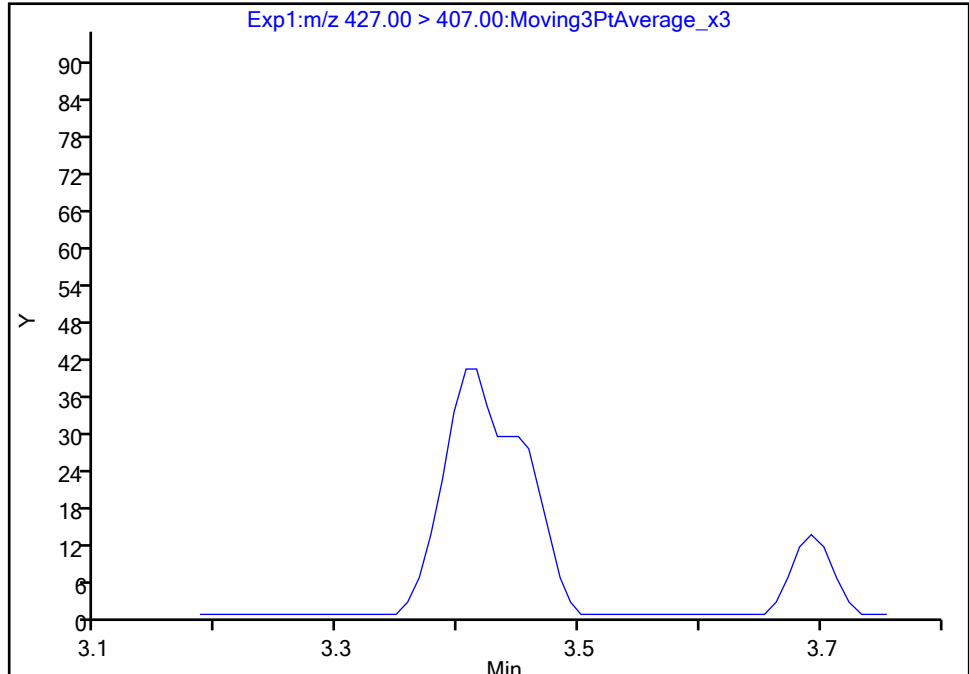
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Injection Date: 27-Oct-2020 20:48:34 Instrument ID: LC812
Lims ID: 480-176996-C-9-A Lab Sample ID: 200-176996-9
Client ID: DUPLICATE
Operator ID: lc812tech ALS Bottle#: 25 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

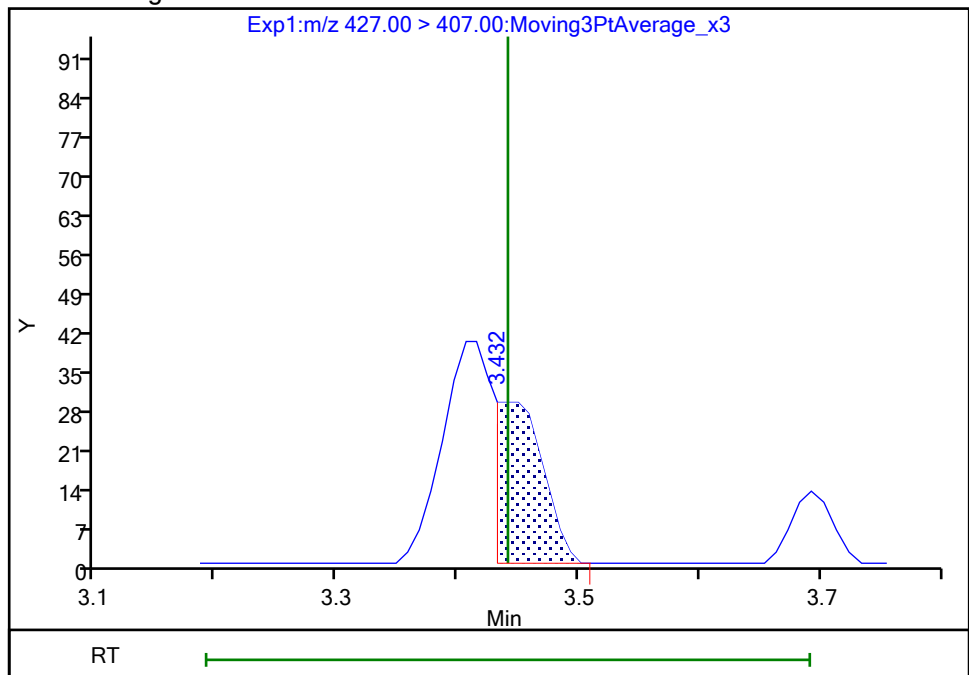
Signal: 1

Not Detected
Expected RT: 3.44

Processing Integration Results



Manual Integration Results



RT: 3.43
Area: 72
Amount: 0.001307
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 10:20:32

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

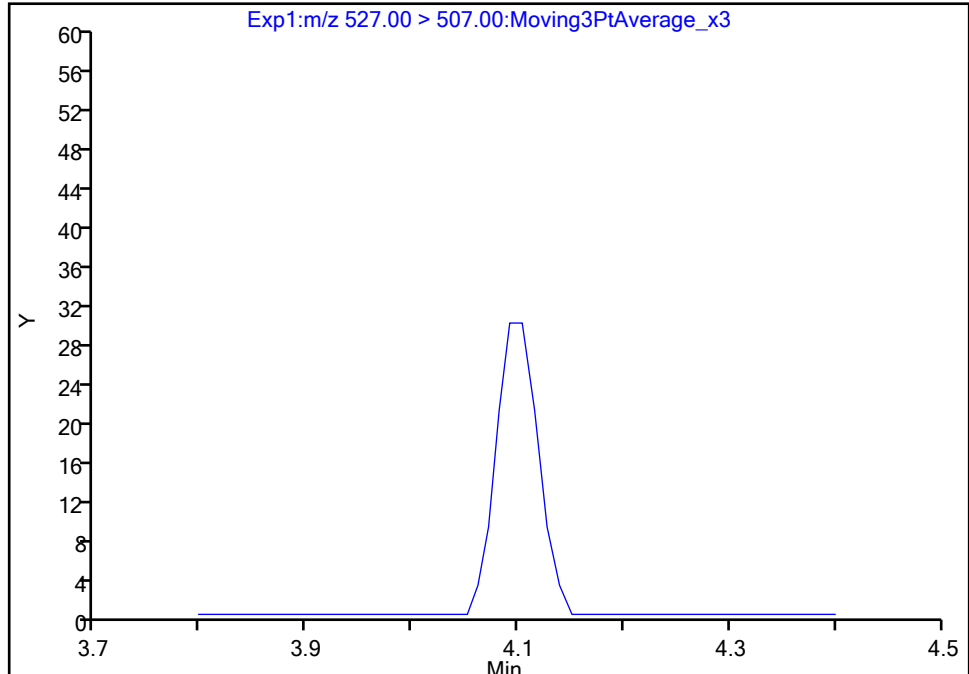
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Injection Date: 27-Oct-2020 20:48:34 Instrument ID: LC812
Lims ID: 480-176996-C-9-A Lab Sample ID: 200-176996-9
Client ID: DUPLICATE
Operator ID: lc812tech ALS Bottle#: 25 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

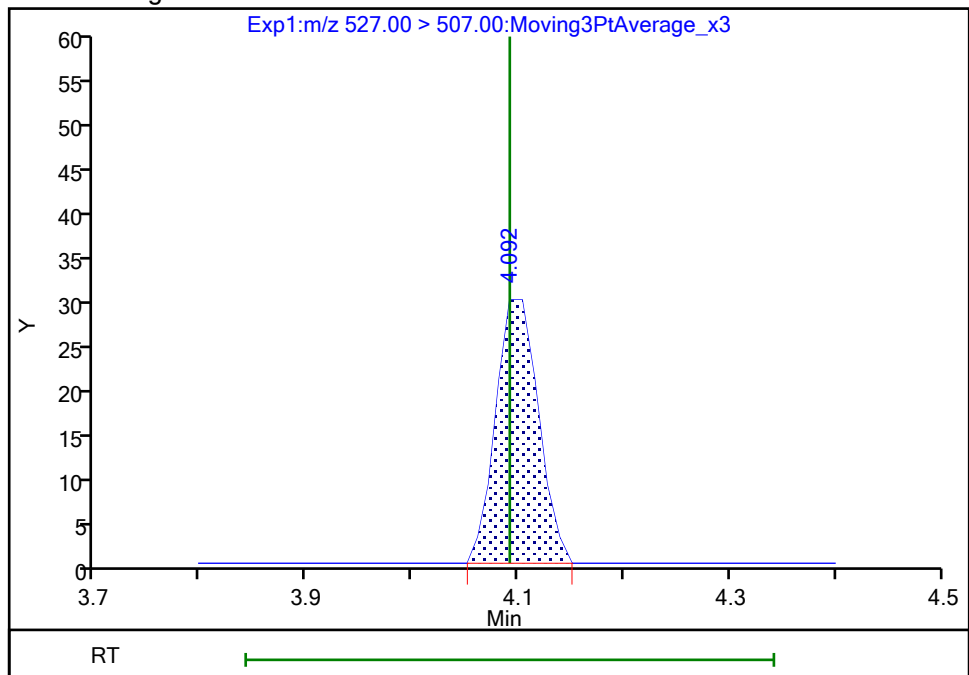
Not Detected
Expected RT: 4.09

Processing Integration Results



RT: 4.09
Area: 84
Amount: 0.003273
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:21:45

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

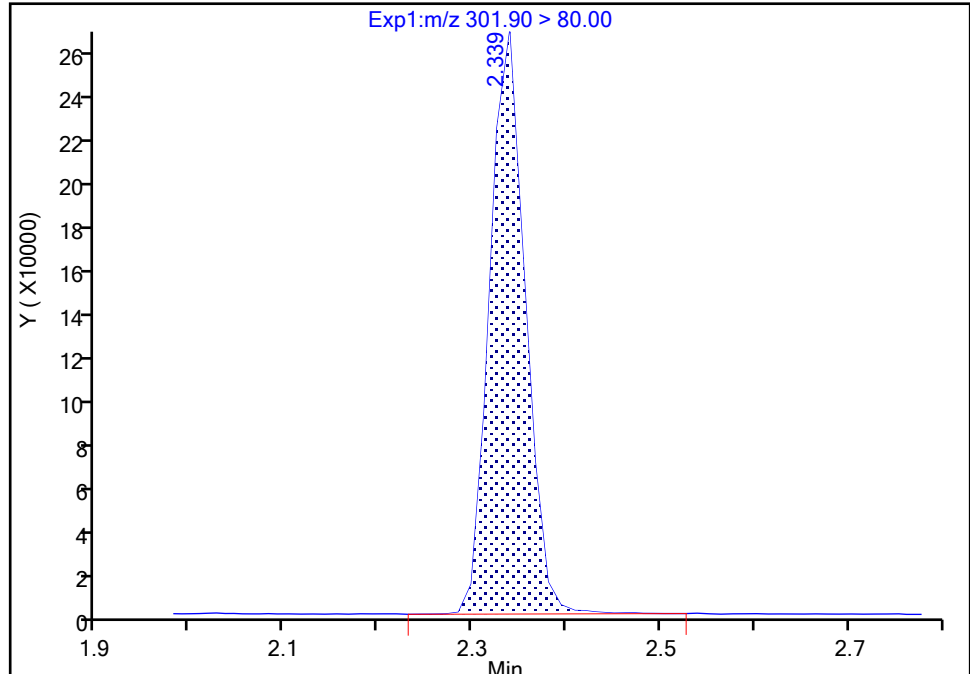
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Injection Date: 27-Oct-2020 20:48:34 Instrument ID: LC812
Lims ID: 480-176996-C-9-A Lab Sample ID: 200-176996-9
Client ID: DUPLICATE
Operator ID: lc812tech ALS Bottle#: 25 Worklist Smp#: 28
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

D 47 13C3 PFBS, CAS: STL02337

Signal: 1

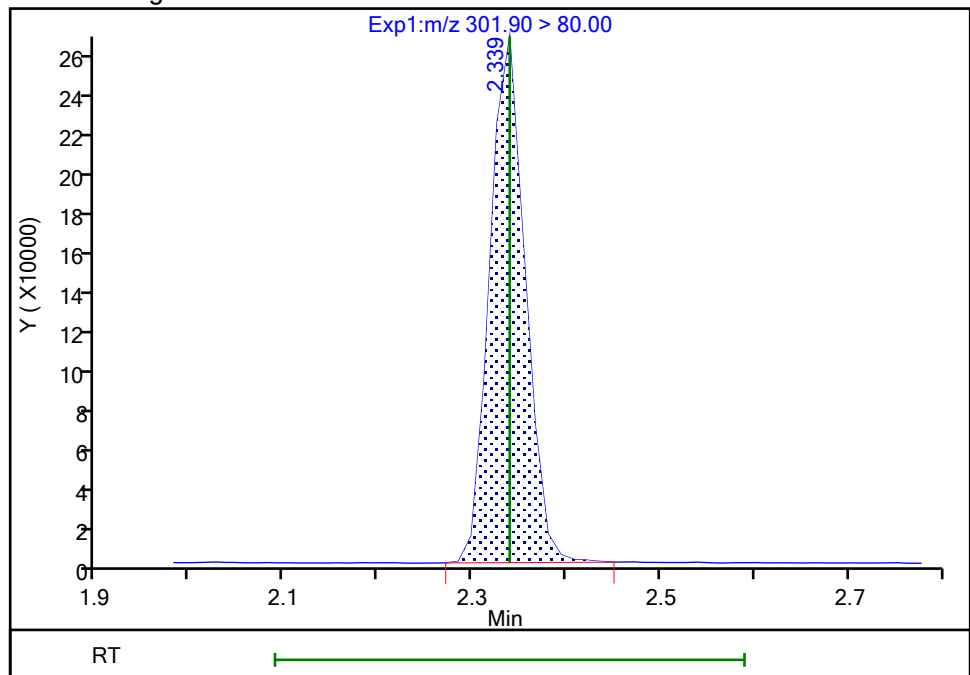
RT: 2.34
Area: 692579
Amount: 1.037117
Amount Units: ng/ml

Processing Integration Results



RT: 2.34
Area: 689841
Amount: 1.033017
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:19:24

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1 Analy Batch No.: 159115

SDG No.: _____

Instrument ID: LC812 GC Column: C-18 ID: 4.6 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/22/2020 19:30 Calibration End Date: 09/22/2020 20:11 Calibration ID: 44168

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-159115/5	PA200922ICAL05.d
Level 2	IC 200-159115/6	PA200922ICAL06.d
Level 3	IC 200-159115/7	PA200922ICAL07.d
Level 4	ICIS 200-159115/8	PA200922ICAL08.d
Level 5	IC 200-159115/9	PA200922ICAL09.d
Level 6	IC 200-159115/10	PA200922ICAL10.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Perfluorobutanoic acid (PFBA)	1.2083 0.8035	0.9978	0.8634	0.8614	0.8741	AveID		0.9347				15.9		35.0			
Perfluoropentanoic acid (PFPeA)	1.2995 0.9733	1.1375	0.9850	0.9625	0.9787	AveID		1.0561				12.9		35.0			
Perfluorobutanesulfonic acid (PFBS)	1.0838 0.9012	1.0127	1.0295	0.9965	0.9549	AveID		0.9964				6.3		35.0			
1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	1.8089 1.5890	1.5881	1.6169	1.4887	1.6051	AveID		1.6161				6.5		50.0			
Perfluorohexanoic acid (PFHxA)	1.1216 0.9380	1.0657	0.9202	1.0209	0.9753	AveID		1.0069				7.7		35.0			
Perfluoropentanesulfonic acid	1.3290 1.1183	1.1236	1.2530	1.1146	1.1656	AveID		1.1840				7.5		50.0			
HFPO-DA	2.7225 2.0166	2.4495	2.0764	1.7772	1.7247	AveID		2.1278				18.3		35.0			
Perfluorohexanesulfonic acid (PFHxS)	1.3246 1.0154	1.1226	1.0942	0.9972	1.0724	AveID		1.1044				10.7		35.0			
Perfluoroheptanoic acid (PFHpA)	1.1437 0.8574	1.0435	0.9474	1.0076	1.0127	AveID		1.0021				9.6		35.0			
DONA	3.7938 2.7242	3.2737	3.0009	2.9578	2.7363	AveID		3.0811				13.1		50.0			
Perfluoroheptanesulfonic Acid (PFHpS)	1.3225 1.0784	1.2015	1.1080	1.1425	1.0985	AveID		1.1586				7.9		50.0			
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.8641 0.7494	0.9393	0.7624	0.7368	0.7365	AveID		0.7981				10.6		35.0			
Perfluorooctanoic acid (PFOA)	1.1756 0.9411	1.1035	0.9678	1.0175	0.9890	AveID		1.0324				8.7		35.0			
Perfluorooctanesulfonic acid (PFOS)	1.3525 0.9728	1.0907	1.0121	1.0742	1.0179	AveID		1.0867				12.6		35.0			
Perfluorononanoic acid (PFNA)	1.1609 0.9603	1.1017	0.9162	0.9298	1.0412	AveID		1.0183				9.8		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, Burlington Job No.: 480-176996-1 Analy Batch No.: 159115

SDG No.: _____

Instrument ID: LC812 GC Column: C-18 ID: 4.6 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/22/2020 19:30 Calibration End Date: 09/22/2020 20:11 Calibration ID: 44168

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	1.1121 0.8489	1.0180	0.9534	0.9255	0.8803	AveID		0.9564				10.1		50.0			
Perfluorononanesulfonic acid	1.0337 0.7988	0.8912	0.8101	0.8301	0.7889	AveID		0.8588				10.8		50.0			
Perfluorodecanoic acid (PFDA)	1.2065 0.9631	1.0288	0.9137	0.9537	0.8705	AveID		0.9894				12.0		35.0			
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.4624 0.3778	0.3502	0.4096	0.3888	0.3863	AveID		0.3958				9.6		35.0			
Perfluorooctanesulfonamide (PFOSA)	1.0206 0.8312	1.0384	0.8915	0.9408	0.8866	AveID		0.9348				8.7		35.0			
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.9747 0.9064	1.1460	0.8412	0.8874	0.9066	AveID		0.9437				11.4		35.0			
Perfluorodecanesulfonic acid (PFDS)	0.8407 0.6152	0.7849	0.6999	0.7282	0.6425	AveID		0.7186				11.8		50.0			
Perfluoroundecanoic acid (PFUnA)	1.1117 0.9053	0.9606	0.9534	1.0207	0.9662	AveID		0.9863				7.3		35.0			
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.0617 0.8184	1.1522	0.7389	0.9026	0.8192	AveID		0.9155				17.4		35.0			
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	0.9803 0.7478	0.8664	0.8074	0.8198	0.7280	AveID		0.8250				11.0		50.0			
Perfluorododecanoic acid (PFDoA)	1.1540 0.8629	0.9695	0.9667	0.9850	0.9132	AveID		0.9752				10.1		35.0			
10:2 FTS	0.2054 0.2123	0.2115	0.2277	0.2390	0.2237	AveID		0.2199				5.7		50.0			
Perfluorododecanesulfonic acid (PFDoS)	0.3158 0.2093	0.2283	0.2065	0.2164	0.2071	AveID		0.2306				18.5		50.0			
Perfluorotridecanoic acid (PFTriA)	0.9081 0.7085	0.9448	0.8643	0.7874	0.7560	AveID		0.8282				11.1		50.0			
Perfluorotetradecanoic acid (PFTeA)	0.2689 0.2123	0.2520	0.2146	0.2077	0.2188	AveID		0.2290				11.0		35.0			
Perfluoro-n-hexadecanoic acid (PFHxDA)	1.2824 0.8285	1.0543	0.9277	0.9025	0.9001	L2ID	0.0204	0.8689							0.9990		0.9900
Perfluoro-n-octadecanoic acid (PFODA)	0.8164 0.6447	0.8541	0.7595	0.7232	0.6861	AveID		0.7473				10.6		50.0			
13C4 PFBA	1.5248 1.3700	1.4630	1.3682	1.4402	1.4316	Ave		1.4330				4.1		30.0			
13C5 PFPeA	1.0994 0.9256	1.0628	1.0120	1.0519	1.0106	Ave		1.0270				5.8		30.0			
13C3 PFBS	1.3231 1.2412	1.2620	1.1630	1.2619	1.2531	Ave		1.2507				4.1		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, Burlington Job No.: 480-176996-1 Analy Batch No.: 159115

SDG No.: _____

Instrument ID: LC812 GC Column: C-18 ID: 4.6 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/22/2020 19:30 Calibration End Date: 09/22/2020 20:11 Calibration ID: 44168

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
M2-4:2 FTS	0.1063 0.0845	0.0936	0.0882	0.0952	0.0958	Ave		0.0939				8.0		30.0			
13C2 PFHxA	1.0863 0.9857	1.1075	1.0207	1.0819	1.0636	Ave		1.0576				4.3		30.0			
13C3 HFPO-DA	0.1052 0.0884	0.0884	0.0864	0.1126	0.1104	Ave		0.0985				12.3		30.0			
18O2 PFHxS	0.9509 0.8790	0.9231	0.7905	0.9473	0.8933	Ave		0.8974				6.6		30.0			
13C4 PFHpA	1.0568 0.9309	0.9894	0.9437	0.9360	0.9152	Ave		0.9620				5.5		30.0			
M2-6:2 FTS	0.1332 0.1085	0.1191	0.1122	0.1240	0.1227	Ave		0.1199				7.4		30.0			
13C4 PFOA	1.0514 0.9053	1.0188	0.9465	0.9962	0.9885	Ave		0.9845				5.3		30.0			
13C4 PFOS	0.7868 0.6970	0.7311	0.6909	0.7273	0.7712	Ave		0.7341				5.3		30.0			
13C5 PFNA	0.8750 0.7521	0.8635	0.8157	0.8644	0.8071	Ave		0.8296				5.7		30.0			
13C2 PFDA	0.8379 0.7097	0.8527	0.7437	0.8145	0.8149	Ave		0.7956				7.1		30.0			
M2-8:2 FTS	0.1609 0.1239	0.1534	0.1378	0.1347	0.1367	Ave		0.1413				9.5		30.0			
13C8 FOSA	1.3941 1.2571	1.2721	1.1994	1.2573	1.3122	Ave		1.2820				5.1		30.0			
d3-NMeFOSAA	0.0473 0.0426	0.0463	0.0459	0.0440	0.0456	Ave		0.0453				3.7		30.0			
13C2 PFUnA	0.6591 0.5648	0.6448	0.5746	0.5917	0.5685	Ave		0.6006				6.8		30.0			
d5-NEtFOSAA	0.0568 0.0420	0.0506	0.0491	0.0467	0.0470	Ave		0.0487				10.1		30.0			
13C2 PFDoA	0.6890 0.5886	0.6274	0.6043	0.6566	0.6427	Ave		0.6348				5.7		30.0			
13C2 PFTeDA	0.4928 0.4174	0.4552	0.4187	0.4873	0.4414	Ave		0.4522				7.2		30.0			
13C2 PFHxDA	0.5684 0.4890	0.5051	0.4775	0.5083	0.5264	Ave		0.5124				6.3		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
RESPONSE AND CONCENTRATION

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1 Analy Batch No.: 159115

SDG No.: _____

Instrument ID: LC812 GC Column: C-18 ID: 4.6 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/22/2020 19:30 Calibration End Date: 09/22/2020 20:11 Calibration ID: 44168

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-159115/5	PA200922ICAL05.d
Level 2	IC 200-159115/6	PA200922ICAL06.d
Level 3	IC 200-159115/7	PA200922ICAL07.d
Level 4	ICIS 200-159115/8	PA200922ICAL08.d
Level 5	IC 200-159115/9	PA200922ICAL09.d
Level 6	IC 200-159115/10	PA200922ICAL10.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Perfluorobutanoic acid (PFBA)		AveID	49507 7000037	82833	365041	699180	1812801	0.0500 10.0	0.100	0.500	1.00	2.50
Perfluoropentanoic acid (PFPeA)		AveID	38390 5728704	68603	308001	570602	1432994	0.0500 10.0	0.100	0.500	1.00	2.50
Perfluorobutanesulfonic acid (PFBS)		AveID	34062 6287596	64112	327034	626454	1532425	0.0442 8.84	0.0884	0.442	0.884	2.21
1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)		AveID	4825 797633	7881	41137	74642	208163	0.0467 9.34	0.0934	0.467	0.934	2.34
Perfluorohexanoic acid (PFHxA)		AveID	32740 5879765	66975	290233	622517	1502717	0.0500 10.0	0.100	0.500	1.00	2.50
Perfluoropentanesulfonic acid		AveID	31854 5863855	55204	287082	558214	1414996	0.0469 9.38	0.0938	0.469	0.938	2.35
HFPO-DA		AveID	7693 1133832	12283	55438	112753	275773	0.0500 10.0	0.100	0.500	1.00	2.50
Perfluorohexanesulfonic acid (PFHxS)		AveID	30800 5165337	53509	243221	484522	1262935	0.0455 9.10	0.0910	0.455	0.910	2.28
Perfluoroheptanoic acid (PFHpA)		AveID	32477 5075336	58588	276267	531540	1342731	0.0500 10.0	0.100	0.500	1.00	2.50
DONA		AveID	75560 11374670	127932	603498	1142080	2879997	0.0471 9.42	0.0942	0.471	0.942	2.36
Perfluoroheptanesulfonic Acid (PFHpS)		AveID	26620 4550478	47450	225184	445834	1168488	0.0476 9.52	0.0952	0.476	0.952	2.38
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)		AveID	2932 490337	6017	25048	48798	124081	0.0474 9.48	0.0948	0.474	0.948	2.37
Perfluorooctanoic acid (PFOA)		AveID	33216 5418021	63800	283046	571265	1416297	0.0500 10.0	0.100	0.500	1.00	2.50
Perfluorooctanesulfonic acid (PFOS)		AveID	26536 4001517	41988	200516	408627	1055393	0.0464 9.28	0.0928	0.464	0.928	2.32
Perfluorononanoic acid (PFNA)		AveID	27295 4592773	53981	230931	452952	1217403	0.0500 10.0	0.100	0.500	1.00	2.50
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid		AveID	21915 3507025	39360	189704	353549	916716	0.0466 9.32	0.0932	0.466	0.932	2.33

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1 Analy Batch No.: 159115

SDG No.: _____

Instrument ID: LC812 GC Column: C-18 ID: 4.6 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/22/2020 19:30 Calibration End Date: 09/22/2020 20:11 Calibration ID: 44168

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Perfluorononanesulfonic acid		AveID	20981 3398939	35491	166030	326652	846240	0.0480 9.60	0.0960	0.480	0.960	2.40
Perfluorodecanoic acid (PFDA)		AveID	27164 4346718	49783	209970	437800	1027763	0.0500 10.0	0.100	0.500	1.00	2.50
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)		AveID	1915 285233	2921	16715	28279	73312	0.0479 9.58	0.0958	0.479	0.958	2.40
Perfluorooctanesulfonamide (PFOSA)		AveID	38232 6644752	74962	330389	666683	1685296	0.0500 10.0	0.100	0.500	1.00	2.50
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)		AveID	1238 245746	3014	11937	22030	59827	0.0500 10.0	0.100	0.500	1.00	2.50
Perfluorodecanesulfonic acid (PFDS)		AveID	17135 2628599	31388	144034	287760	692018	0.0482 9.64	0.0964	0.482	0.964	2.41
Perfluoroundecanoic acid (PFUnA)		AveID	19690 3251975	35149	169269	340391	795804	0.0500 10.0	0.100	0.500	1.00	2.50
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)		AveID	1619 218696	3309	11209	23746	55787	0.0500 10.0	0.100	0.500	1.00	2.50
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid		AveID	19524 3122376	33859	162373	316530	766255	0.0471 9.42	0.0942	0.471	0.942	2.36
Perfluorododecanoic acid (PFDoA)		AveID	21364 3229716	34516	180494	364468	850316	0.0500 10.0	0.100	0.500	1.00	2.50
10:2 FTS		AveID	856 161243	1775	9351	17497	42726	0.0482 9.64	0.0964	0.482	0.964	2.41
Perfluorododecanesulfonic acid (PFDoS)		AveID	6464 898184	9167	42682	85863	223973	0.0484 9.68	0.0968	0.484	0.968	2.42
Perfluorotridecanoic acid (PFTriA)		AveID	16813 2651985	33638	161376	291377	703958	0.0500 10.0	0.100	0.500	1.00	2.50
Perfluorotetradecanoic acid (PFTeA)		AveID	3561 563548	6510	27765	57042	139913	0.0500 10.0	0.100	0.500	1.00	2.50
Perfluoro-n-hexadecanoic acid (PFHxDA)		L2ID	19587 2576342	30217	136875	258509	686432	0.0500 10.0	0.100	0.500	1.00	2.50
Perfluoro-n-octadecanoic acid (PFODA)		AveID	12470 2004833	24480	112069	207162	523242	0.0500 10.0	0.100	0.500	1.00	2.50
13C4 PFBA	13PF OA	Ave	1024350 1089016	1037724	1056932	1014598	1036961	1.25 1.25	1.25	1.25	1.25	1.25
13C5 PFPeA	13PF OA	Ave	738570 735752	753884	781757	741010	732056	1.25 1.25	1.25	1.25	1.25	1.25
13C3 PFBS	13PF OA	Ave	826626 917546	832503	835513	826748	844132	1.16 1.16	1.16	1.16	1.16	1.16
M2-4:2 FTS	13PF OA	Ave	66683 62748	62030	63606	62673	64846	1.17 1.17	1.17	1.17	1.17	1.17
13C2 PFHxA	13PF OA	Ave	729773 783524	785597	788477	762210	770416	1.25 1.25	1.25	1.25	1.25	1.25

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1 Analy Batch No.: 159115

SDG No.: _____

Instrument ID: LC812 GC Column: C-18 ID: 4.6 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/22/2020 19:30 Calibration End Date: 09/22/2020 20:11 Calibration ID: 44168

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
13C3 HFPO-DA	13PF OA	Ave	70643 70282	62681	66748	79305	79948	1.25 1.25	1.25	1.25	1.25	1.25
18O2 PFHxS	13PF OA	Ave	604303 661019	619406	577663	631349	612150	1.18 1.18	1.18	1.18	1.18	1.18
13C4 PFHpA	13PF OA	Ave	709918 739938	701789	729002	659408	662941	1.25 1.25	1.25	1.25	1.25	1.25
M2-6:2 FTS	13PF OA	Ave	85009 81966	80244	82305	82963	84414	1.19 1.19	1.19	1.19	1.19	1.19
13C4 PFOA	13PF OA	Ave	706333 719638	722671	731192	701817	716010	1.25 1.25	1.25	1.25	1.25	1.25
13C4 PFOS	13PF OA	Ave	505317 529677	495742	510243	489827	534075	1.20 1.20	1.20	1.20	1.20	1.20
13C5 PFNA	13PF OA	Ave	587790 597837	612495	630136	608945	584597	1.25 1.25	1.25	1.25	1.25	1.25
13C2 PFDA	13PF OA	Ave	562880 564176	604855	574488	573806	590304	1.25 1.25	1.25	1.25	1.25	1.25
M2-8:2 FTS	13PF OA	Ave	103546 94366	104254	102015	90925	94893	1.20 1.20	1.20	1.20	1.20	1.20
13C8 FOSA	13PF OA	Ave	936537 999304	902363	926529	885746	950469	1.25 1.25	1.25	1.25	1.25	1.25
d3-NMeFOSAA	13PF OA	Ave	31753 33892	32875	35476	31030	32996	1.25 1.25	1.25	1.25	1.25	1.25
13C2 PFUnA	13PF OA	Ave	442772 449002	457385	443846	416873	411827	1.25 1.25	1.25	1.25	1.25	1.25
d5-NEtFOSAA	13PF OA	Ave	38124 33401	35898	37925	32884	34049	1.25 1.25	1.25	1.25	1.25	1.25
13C2 PFDoA	13PF OA	Ave	462842 467874	445040	466792	462535	465565	1.25 1.25	1.25	1.25	1.25	1.25
13C2 PFTeDA	13PF OA	Ave	331051 331810	322915	323465	343318	319736	1.25 1.25	1.25	1.25	1.25	1.25
13C2 PFHxDA	13PF OA	Ave	381852 388694	358275	368871	358063	381324	1.25 1.25	1.25	1.25	1.25	1.25

Curve Type Legend:

Ave = Average ISTD
AveID = Average isotope dilution
L2ID = Linear 1/conc^2 IsoDil

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL05.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 22-Sep-2020 19:30:30 ALS Bottle#: 2 Worklist Smp#: 5
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: IC
 Misc. Info.: 200-0042904-005 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Sublist: chrom-PFC_LC812*sub3
 Method: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 23-Sep-2020 10:27:00 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1050

First Level Reviewer: chirgwinb

Date: 23-Sep-2020 10:26:59

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 1 13C4 PFBA										
217.00 > 172.00	2.000	1.990	0.010	0.577	1024350	1.33		106	6859	
2 Perfluorobutanoic acid										M
212.90 > 169.00	2.000	2.000	0.0	1.000	49507	0.0646		129	7.0	M
D 3 13C5 PFPeA										
267.90 > 223.00	2.340	2.339	0.001	0.675	738570	1.34		107	3667	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.340	2.339	0.001	1.000	38390	0.0615		123	2.2	
D 47 13C3 PFBS										
301.90 > 80.00	2.353	2.353	0.0	0.679	826626	1.23		106	245412	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.367	2.353	0.014	1.006	34062	0.0481	Target=1.99	109	112	
298.90 > 99.00	2.367	2.353	0.014	1.006	18306		1.86(1.00-2.99)	109	26.9	
61 1H,1H,2H,2H-perfluorohexanesulfo										
327.00 > 307.00	2.678	2.678	0.0	1.000	4825	0.0523		112	124	
D 60 M2-4:2 FTS										
329.00 > 81.00	2.678	2.678	0.0	0.772	66683	1.32		113	174	
D 7 13C2 PFHxA										
315.00 > 270.00	2.716	2.716	0.0	0.783	729773	1.28		103	3182	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.716	2.716	0.0	1.000	32740	0.0557	Target=11.58	111	12.7	
313.00 > 119.00	2.716	2.716	0.0	1.000	3283		9.97(5.79-17.37)	111	8.5	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.716	2.716	0.0	0.877	31854	0.0526	Target=3.36	112	160	
349.00 > 99.00	2.716	2.716	0.0	0.877	10345		3.08(1.68-5.05)	112	53.4	
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.827	2.818	0.009	0.815	70643	1.33		107	922	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
67 Perfluoro(2-propoxypropanoic) ac										M
329.10 > 285.00	2.827	2.826	0.001	1.000	7693	0.0640		128	2.0	M
D 11 18O2 PFHxS										
403.00 > 84.00	3.096	3.084	0.012	0.893	604303	1.25		106	4623	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.096	3.096	0.0	1.000	30800	0.0546	Target=4.59	120	120	
399.00 > 99.00	3.096	3.096	0.0	1.000	6717		4.59(2.29-6.88)	120	17.5	M
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.096	3.096	0.0	1.000	32477	0.0571	Target=3.29	114	16.7	
363.00 > 169.00	3.096	3.096	0.0	1.000	10524		3.09(1.65-4.94)	114	52.3	
D 9 13C4 PFHpA										
367.00 > 322.00	3.096	3.096	0.0	0.893	709918	1.37		110	3745	
77 DONA										
377.00 > 251.00	3.140	3.132	0.008	0.829	75560	0.0580	Target=2.40	123	289	
377.00 > 85.00	3.132	3.132	0.0	0.827	31570		2.39(1.20-3.60)	123	88.2	
16 Perfluoroheptanesulfonic acid										M
449.00 > 80.00	3.450	3.450	0.0	0.911	26620	0.0543	Target=6.94	114	424	
449.00 > 99.00	3.450	3.450	0.0	0.911	3978		6.69(3.47-10.41)	114	51.6	M
D 12 M2-6:2 FTS										
429.00 > 81.00	3.459	3.450	0.009	0.998	85009	1.32		111	715	
13 1H,1H,2H,2H-perfluorooctanesulfo										
427.00 > 407.00	3.467	3.450	0.017	1.003	2932	0.0513		108	92.0	
D 14 13C4 PFOA										
417.00 > 372.00	3.467	3.458	0.009	1.000	706333	1.34		107	6743	
* 62 13C2 PFOA										
415.00 > 370.00	3.467	3.458	0.009		671785	1.25			2130	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.467	3.458	0.009	1.000	33216	0.0569	Target=2.26	114	16.3	
413.00 > 169.00	3.467	3.458	0.009	1.000	15083		2.20(1.13-3.38)	114	43.4	
D 18 13C4 PFOS										
503.00 > 80.00	3.786	3.776	0.010	1.092	505317	1.28		107	2236	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.786	3.776	0.010	1.000	26536	0.0577	Target=6.66	124	93.9	M
499.00 > 99.00	3.776	3.776	0.0	0.997	3884		6.83(3.33-9.99)	124	38.8	M
20 Perfluorononanoic acid										
463.00 > 419.00	3.797	3.797	0.0	1.000	27295	0.0570	Target=6.07	114	10.4	
463.00 > 169.00	3.808	3.797	0.011	1.003	4876		5.60(3.03-9.10)	114	121	
D 19 13C5 PFNA										
468.00 > 423.00	3.797	3.797	0.0	1.095	587790	1.32		105	4550	
69 9-Chlorohexadecafluoro-3-oxanona										
531.00 > 351.00	3.941	3.941	0.0	1.041	21915	0.0542		116	311	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.072	4.072	0.0	1.075	20981	0.0578	Target=3.49	120	365	
549.00 > 99.00	4.072	4.072	0.0	1.075	5243		4.00(1.75-5.24)	120	39.1	
24 Perfluorodecanoic acid										
513.00 > 469.00	4.104	4.092	0.012	1.003	27164	0.0610	Target=6.79	122	47.5	
513.00 > 169.00	4.104	4.092	0.012	1.003	3866		7.03(3.39-10.18)	122	83.4	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 23 13C2 PFDA										
515.00 > 470.00	4.092	4.092	0.0	1.180	562880	1.32		105	4086	
25 1H,1H,2H,2H-perfluorodecanesulfo										M
527.00 > 507.00	4.104	4.103	0.001	1.000	1915	0.0559		117	67.0	M
D 26 M2-8:2 FTS										
529.00 > 81.00	4.104	4.103	0.001	1.184	103546	1.36		114	882	
D 21 13C8 FOSA										
506.00 > 78.00	4.151	4.151	0.0	1.197	936537	1.36		109	2839	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.161	4.151	0.010	1.003	38232	0.0546		109	108	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.235	4.235	0.0	1.221	31753	1.30		104	966	
28 N-methylperfluorooctanesulfonami										M
570.00 > 419.00	4.245	4.245	0.0	1.002	1238	0.0516		103	28.6	M
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.332	4.332	0.0	1.144	17135	0.0564	Target=3.11	117	106	
599.00 > 99.00	4.332	4.332	0.0	1.144	5769		2.97(1.55-4.66)	117	54.4	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.366	4.355	0.011	1.000	19690	0.0564	Target=6.33	113	25.1	
563.00 > 169.00	4.366	4.355	0.011	1.000	3737		5.27(3.17-9.50)	113	92.6	
D 30 13C2 PFUnA										
565.00 > 520.00	4.366	4.355	0.011	1.259	442772	1.37		110	3773	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.378	4.366	0.012	1.263	38124	1.46		117	510	
33 N-ethylperfluorooctanesulfonamid										M
584.00 > 419.00	4.378	4.378	0.0	1.000	1619	0.0580		116	44.6	M
66 11-Chloroeicosafuoro-3-oxaundec										
631.00 > 451.00	4.457	4.444	0.013	1.177	19524	0.0560		119	409	
D 36 13C2 PFDaA										
615.00 > 570.00	4.597	4.585	0.012	1.326	462842	1.36		109	2982	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.597	4.585	0.012	1.000	21364	0.0592	Target=5.23	118	16.2	
613.00 > 169.00	4.597	4.585	0.012	1.000	3433		6.22(2.62-7.85)	118	75.1	
74 1H,1H,2H,2H-perfluorododecanesul										
627.00 > 607.00	4.620	4.610	0.010	1.126	856	0.0450		93.4	37.0	
75 Perfluorododecanesulfonic acid (										M
699.00 > 80.00	4.772	4.763	0.009	1.260	6464	0.0663	Target=0.47	137	20.4	M
699.00 > 99.00	4.763	4.763	0.0	1.258	11268		0.57(0.23-0.70)	137	199	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.802	4.802	0.0	1.045	16813	0.0548	Target=3.57	110	10.8	
663.00 > 169.00	4.802	4.802	0.0	1.045	4510		3.73(1.78-5.35)	110	213	
D 43 13C2 PFTeDA										
715.00 > 670.00	4.997	4.998	-0.001	1.441	331051	1.36		109	4024	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	5.007	4.998	0.009	1.002	3561	0.0587	Target=1.07	117	180	
713.00 > 219.00	4.988	4.998	-0.010	0.998	2848		1.25(0.54-1.61)	117	157	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags

D 44 13C2 PFHxDA

815.00 > 770.00 5.372 5.361 0.011 1.549 381852 1.39 111 3776

45 Perfluorohexadecanoic acid

813.00 > 769.00 5.372 5.372 0.0 1.000 19587 0.0504 Target=3.00 101 18.0

813.00 > 169.00 5.372 5.372 0.0 1.000 6427 3.05(1.50-4.49) 101 280

46 Perfluorooctadecanoic acid

913.00 > 869.00 5.764 5.756 0.008 1.073 12470 0.0546 Target=2.88 109 14.7

913.00 > 169.00 5.764 5.756 0.008 1.073 4088 3.05(1.44-4.32) 109 152

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

PFAS32NCIC1_00005

Amount Added: 100.00

Units: uL

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL05.d

Injection Date: 22-Sep-2020 19:30:30

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#: 2

Worklist Smp#: 5

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

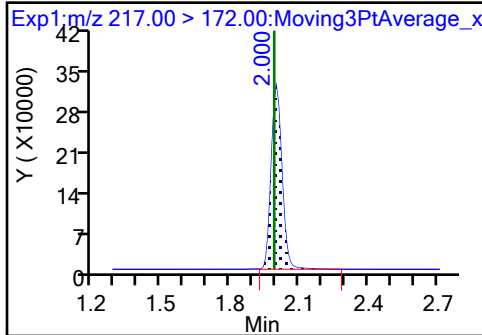
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

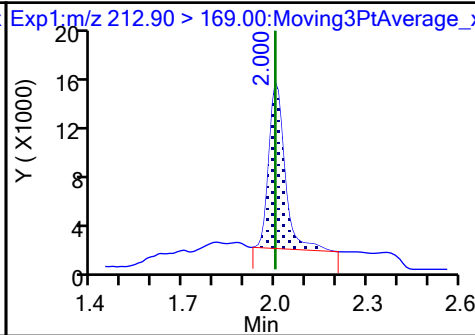
D 1 13C4 PFBA

2 Perfluorobutanoic acid (M)

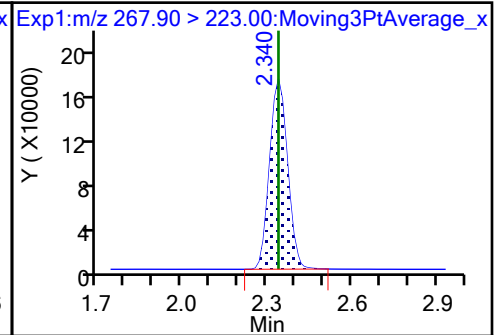
D 3 13C5 PFPeA



RT



RT

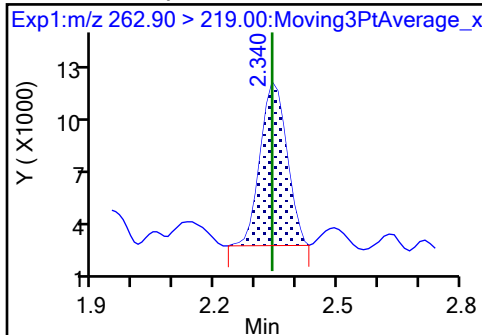


RT

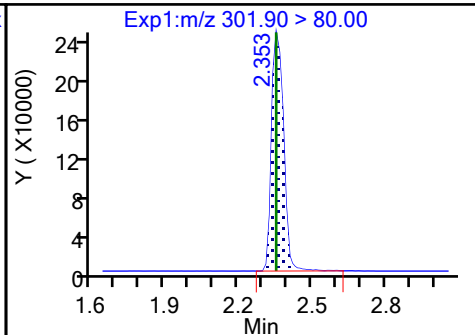
4 Perfluoropentanoic acid

D 47 13C3 PFBS

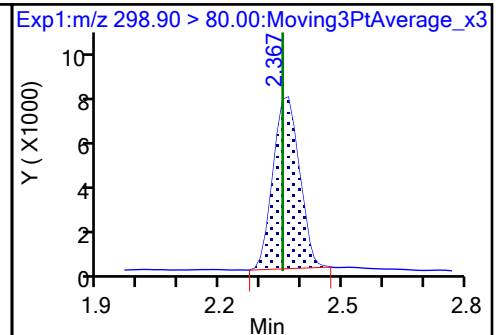
5 Perfluorobutanesulfonic acid



RT



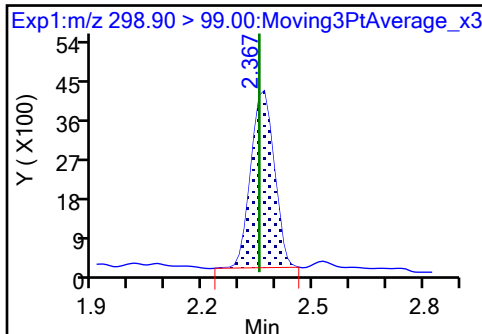
RT



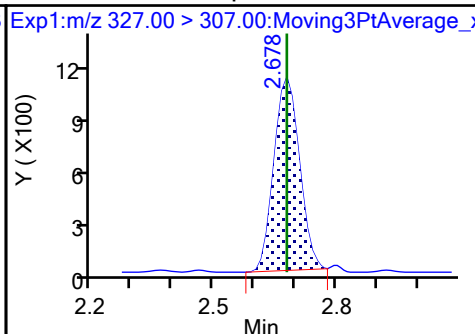
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5 Perfluorobutanesulfonic acid

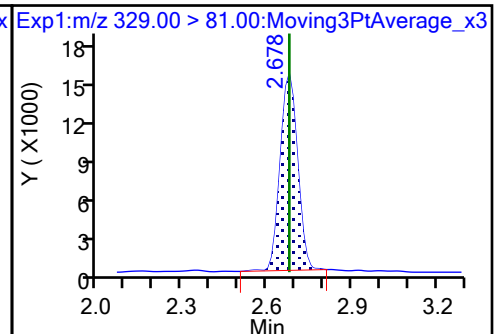
61 1H,1H,2H,2H-perfluorohexanesulfo D 60 M2-4:2 FTS



RT



RT

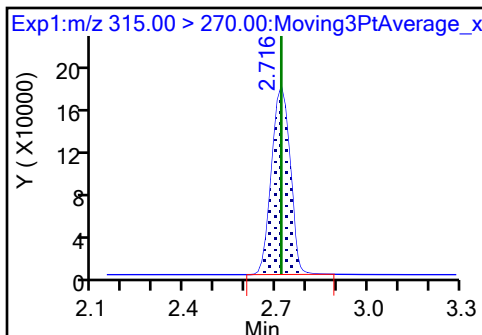


RT

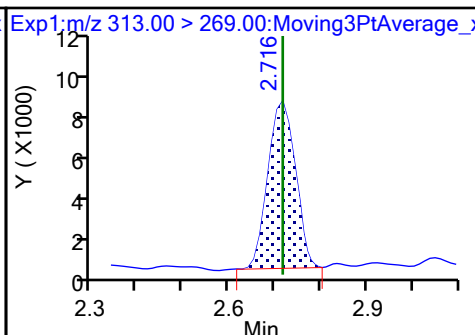
D 7 13C2 PFHxA

6 Perfluorohexanoic acid

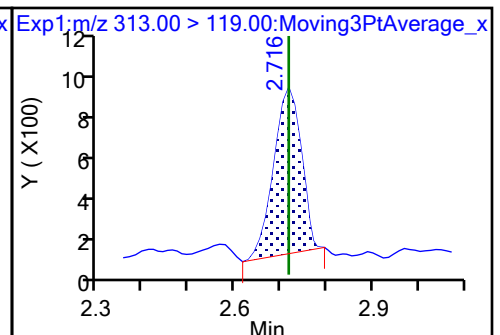
6 Perfluorohexanoic acid



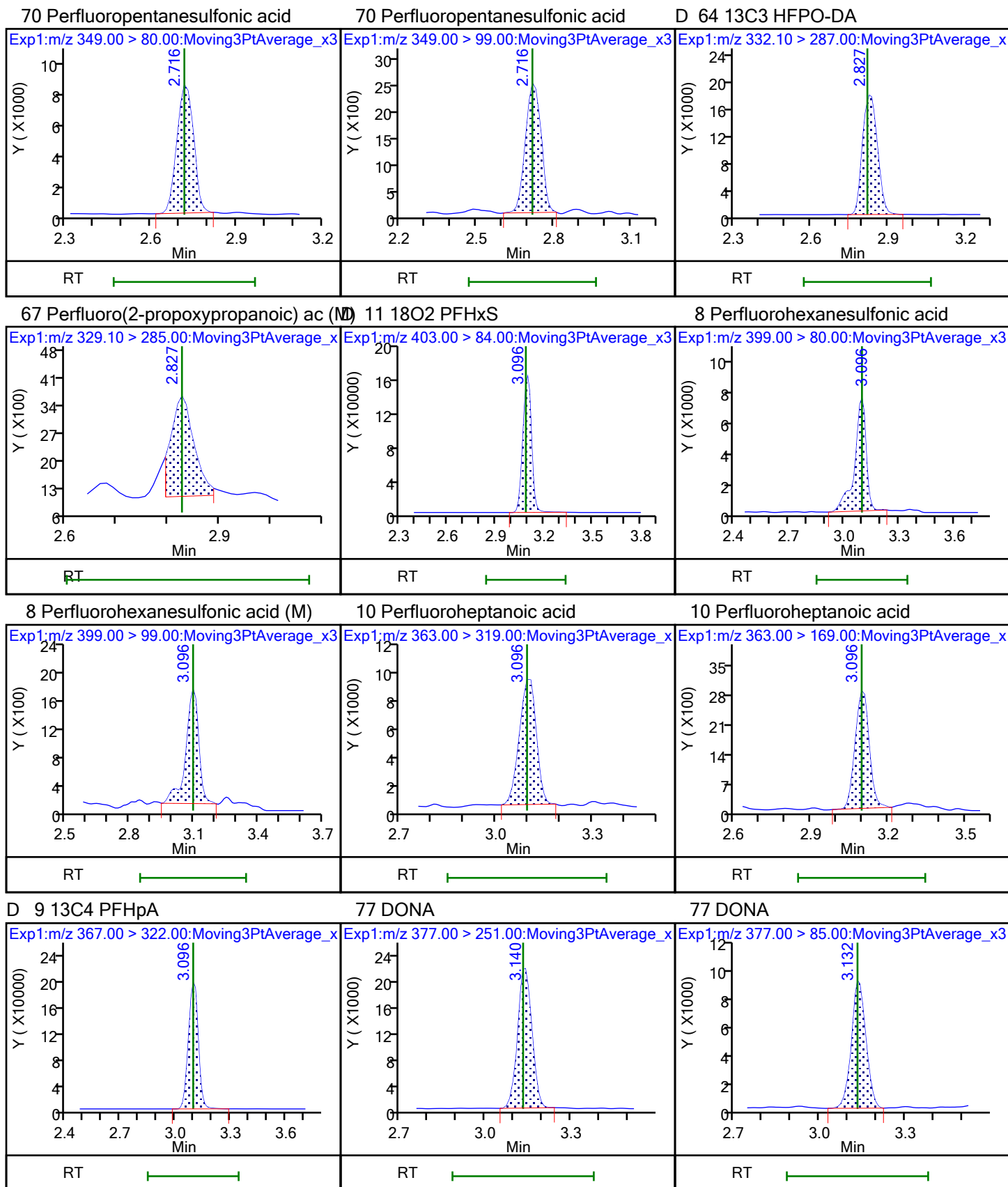
RT



RT



RT

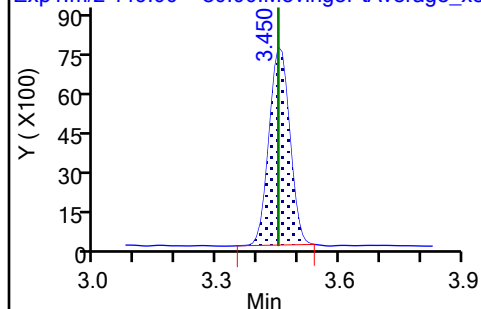


16 Perfluoroheptanesulfonic acid

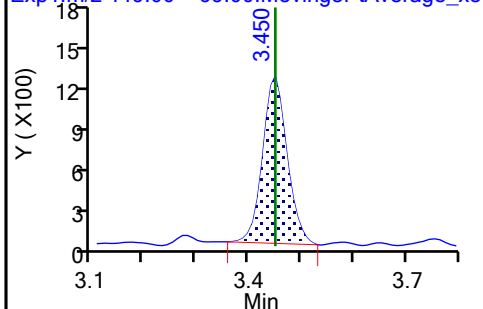
16 Perfluoroheptanesulfonic acid (M)

D 12 M2-6:2 FTS

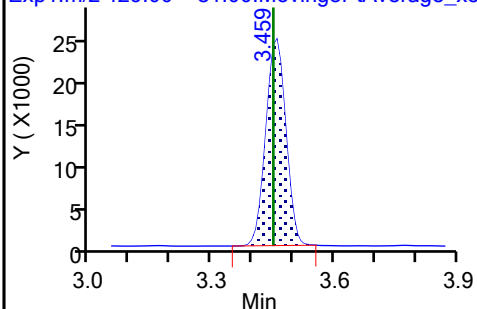
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Exp1:m/z 449.00 > 99.00:Moving3PtAverage_x3



Exp1:m/z 429.00 > 81.00:Moving3PtAverage_x3

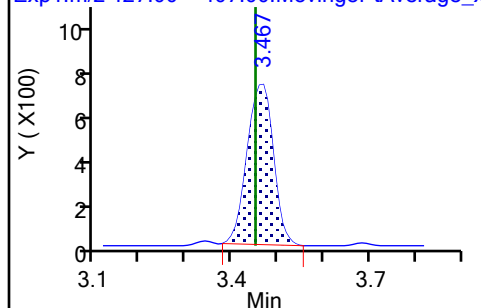


13 1H,1H,2H,2H-perfluorooctanesulfo

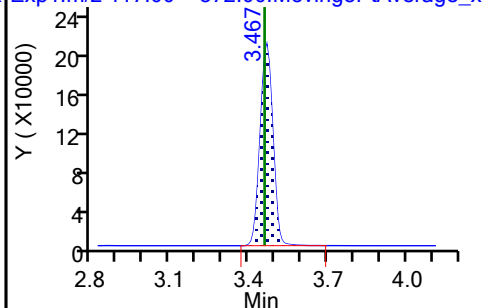
D 14 13C4 PFOA

* 62 13C2 PFOA

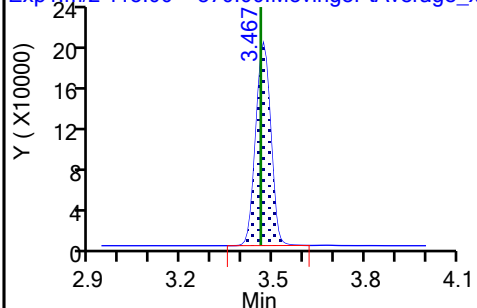
Exp1:m/z 427.00 > 407.00:Moving3PtAverage_x3



Exp1:m/z 417.00 > 372.00:Moving3PtAverage_x3



Exp1:m/z 415.00 > 370.00:Moving3PtAverage_x3

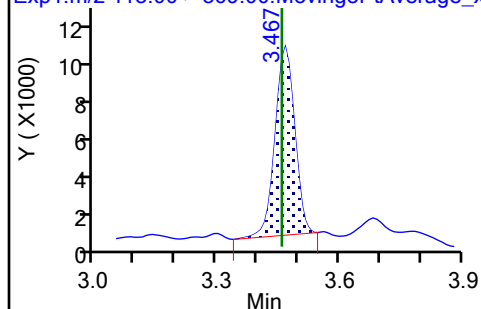


15 Perfluorooctanoic acid

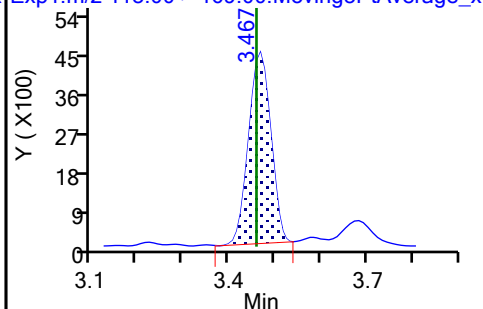
15 Perfluorooctanoic acid

D 18 13C4 PFOS

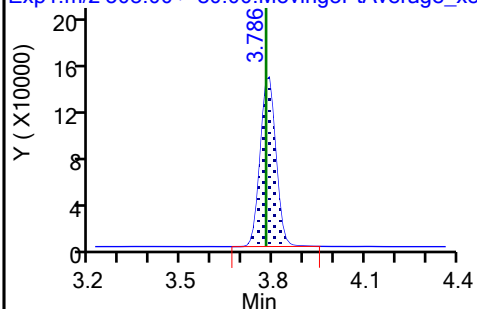
Exp1:m/z 413.00 > 369.00:Moving3PtAverage_x3



Exp1:m/z 413.00 > 169.00:Moving3PtAverage_x3



Exp1:m/z 503.00 > 80.00:Moving3PtAverage_x3

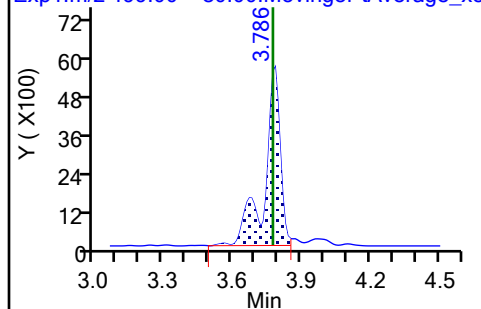


17 Perfluorooctanesulfonic acid (M)

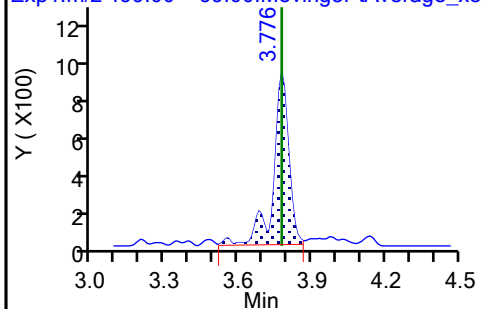
17 Perfluorooctanesulfonic acid (M)

20 Perfluorononanoic acid

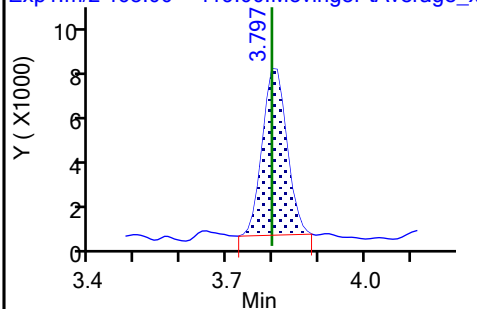
Exp1:m/z 499.00 > 80.00:Moving3PtAverage_x3

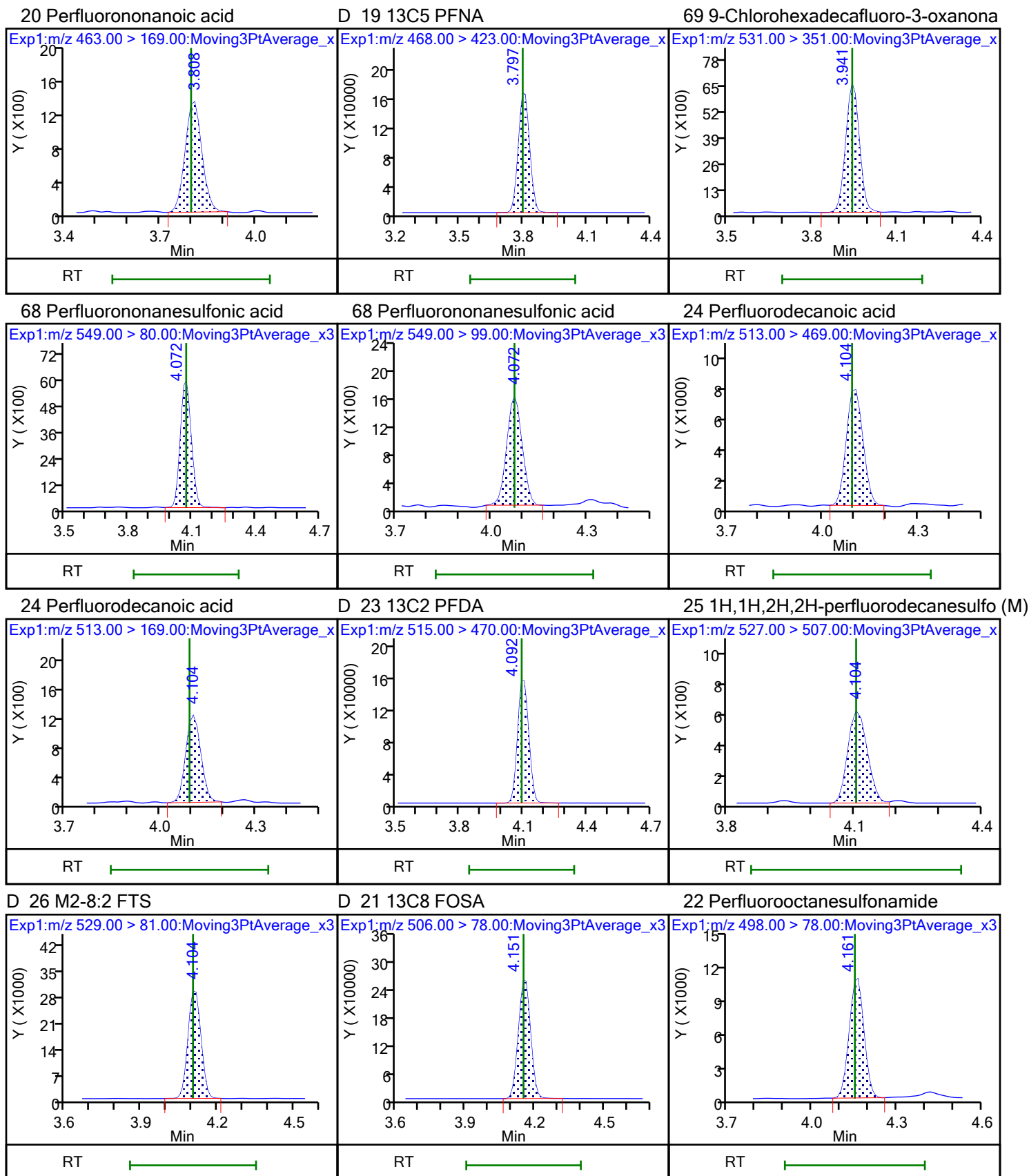


Exp1:m/z 499.00 > 99.00:Moving3PtAverage_x3



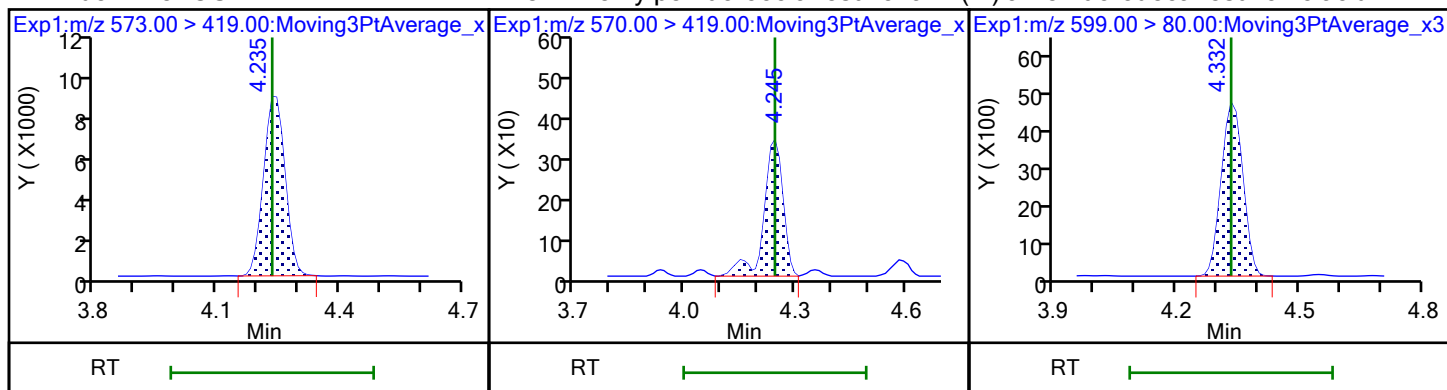
Exp1:m/z 463.00 > 419.00:Moving3PtAverage_x3





D 27 d3-NMeFOSAA

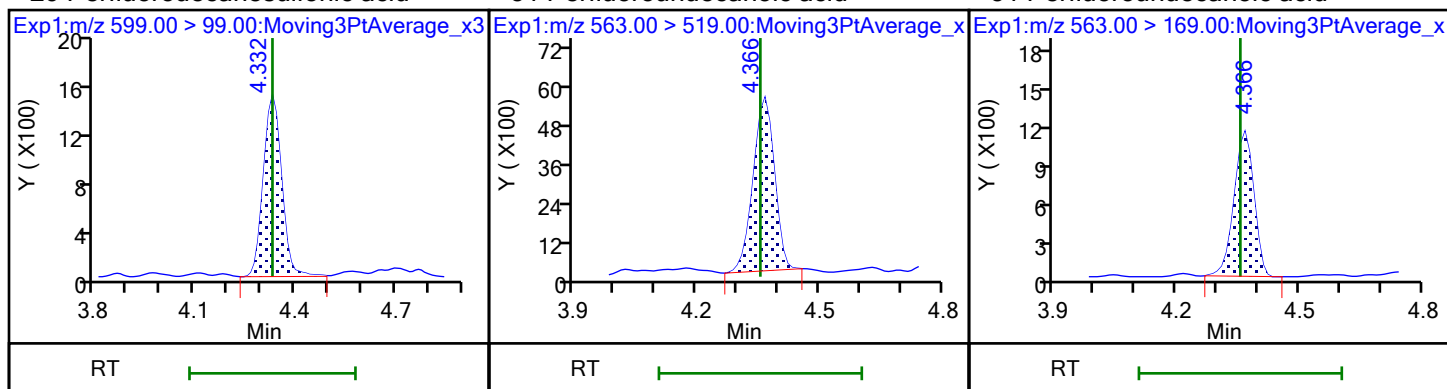
28 N-methylperfluorooctanesulfonami (M29 Perfluorodecanesulfonic acid



29 Perfluorodecanesulfonic acid

31 Perfluoroundecanoic acid

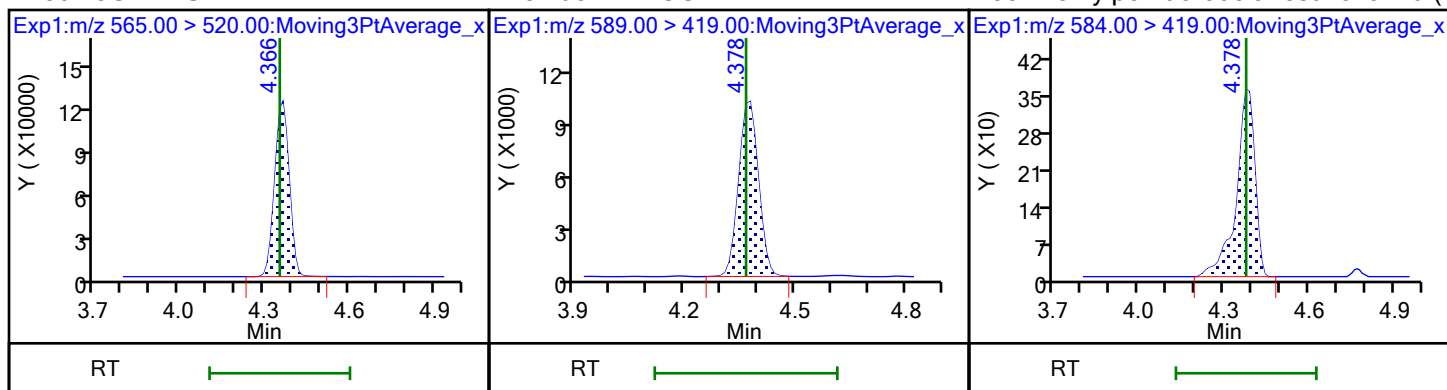
31 Perfluoroundecanoic acid



D 30 13C2 PFUnA

D 32 d5-NEtFOSAA

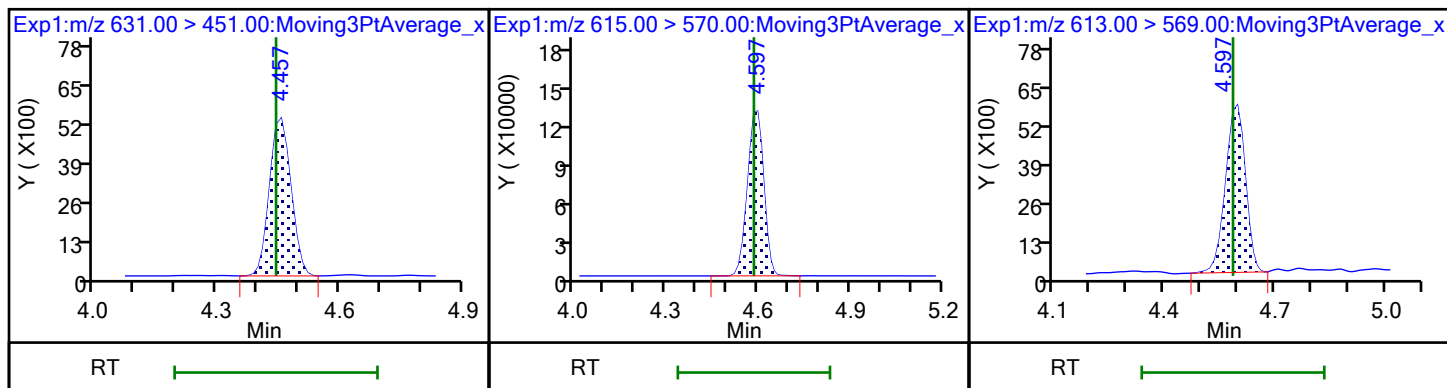
33 N-ethylperfluorooctanesulfonamid (M



66 11-Chloroeicosafuoro-3-oxaundec

D 36 13C2 PFDaA

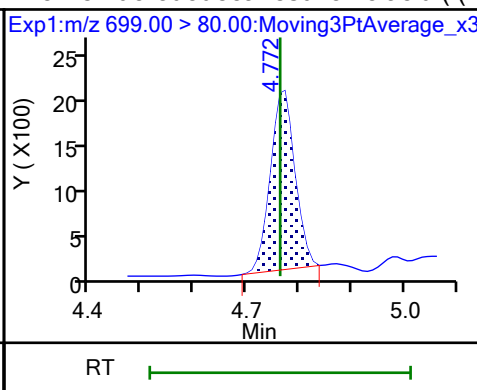
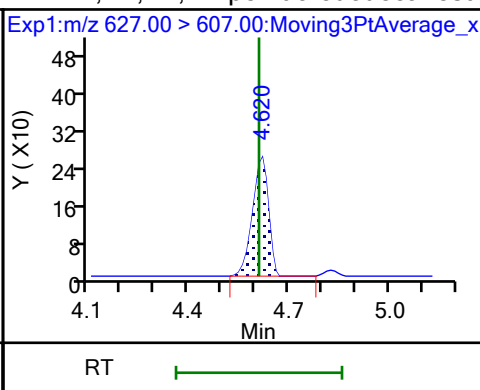
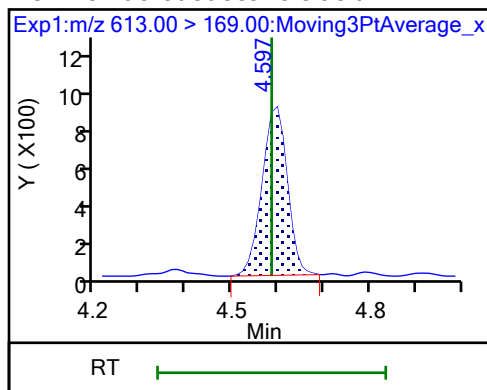
37 Perfluorododecanoic acid



37 Perfluorododecanoic acid

74 1H,1H,2H,2H-perfluorododecanesul

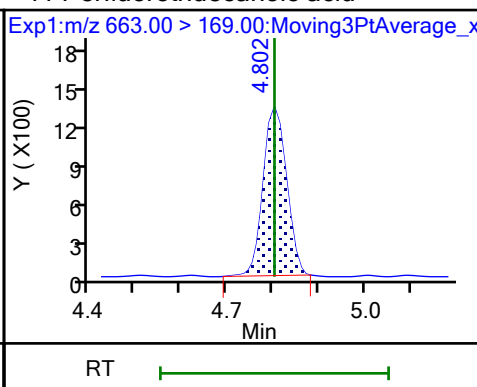
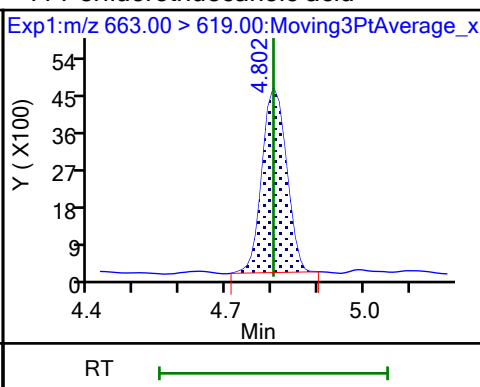
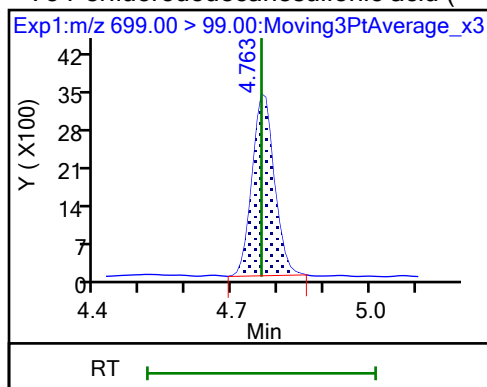
75 Perfluorododecanesulfonic acid ((M)



75 Perfluorododecanesulfonic acid (

41 Perfluorotridecanoic acid

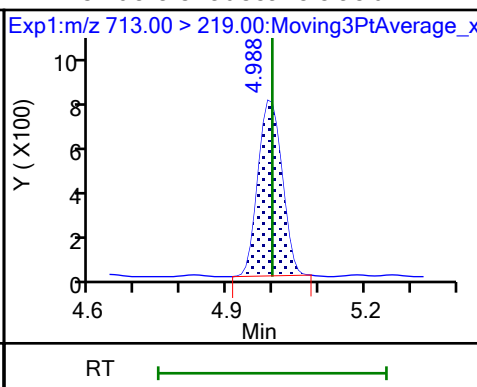
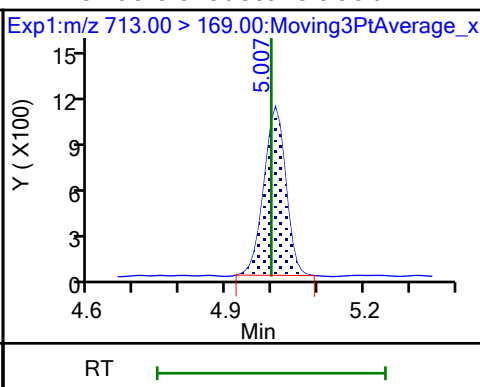
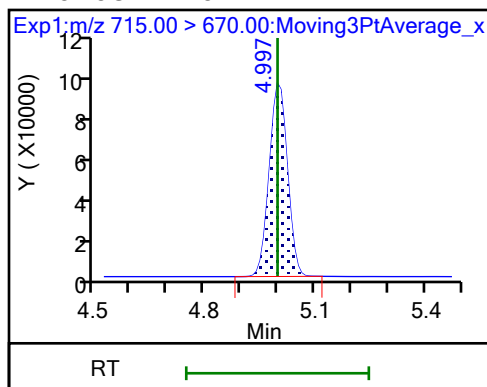
41 Perfluorotridecanoic acid



D 43 13C2 PFTeDA

42 Perfluorotetradecanoic acid

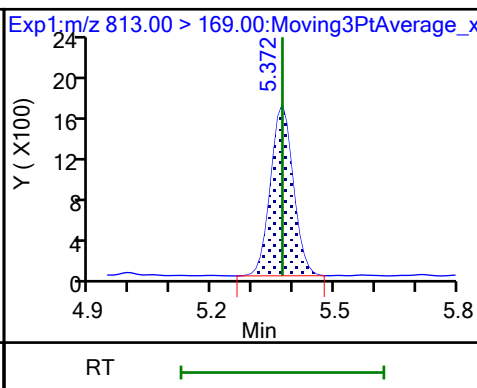
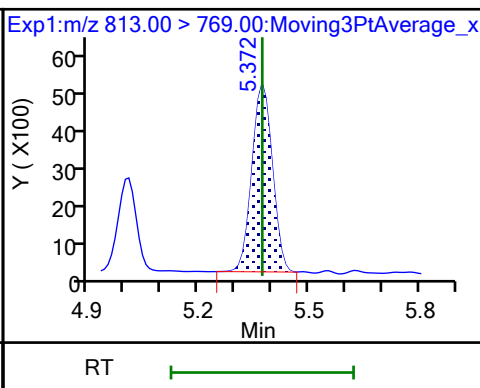
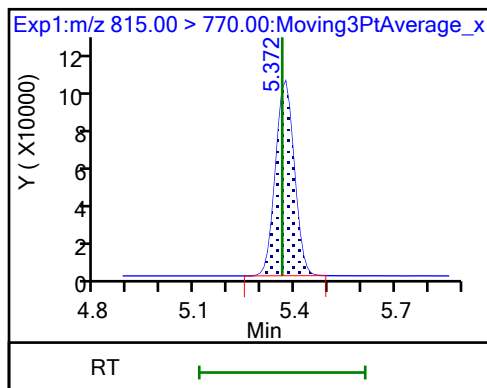
42 Perfluorotetradecanoic acid



D 44 13C2 PFHxDA

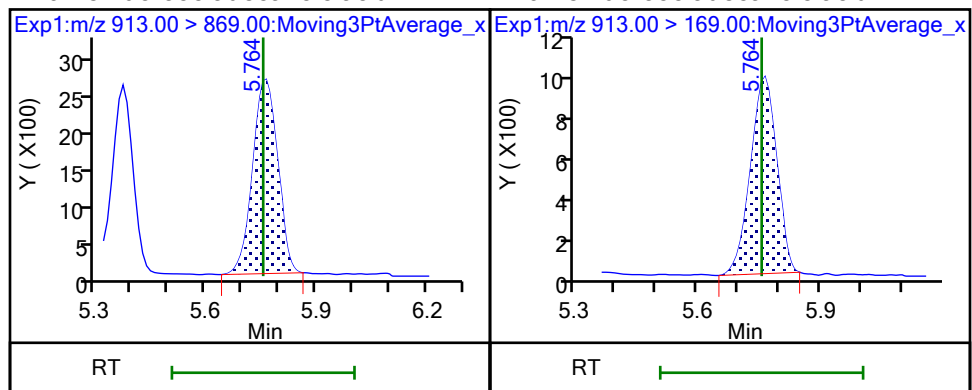
45 Perfluorohexadecanoic acid

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid

46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL05.d

Injection Date: 22-Sep-2020 19:30:30

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

2

Worklist Smp#: 5

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

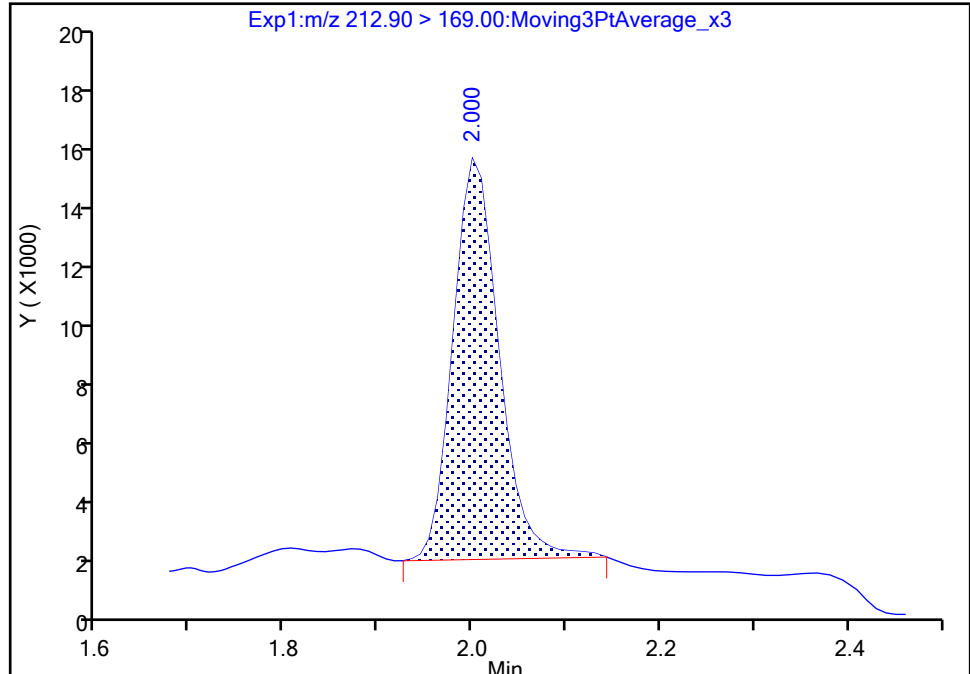
EXP1

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

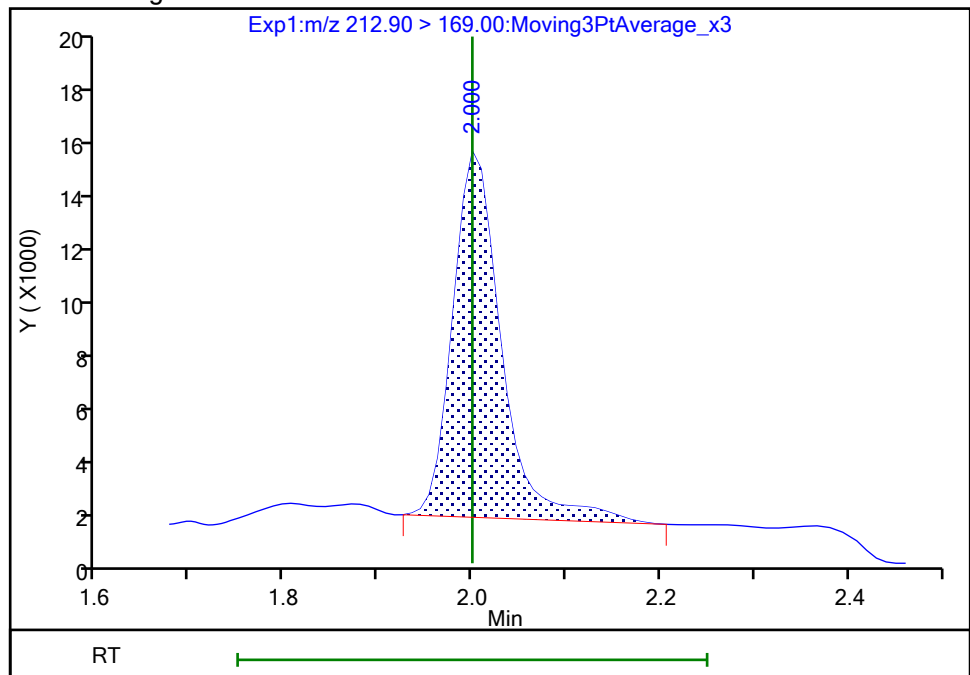
RT: 2.00
Area: 46383
Amount: 0.061387
Amount Units: ng/ml

Processing Integration Results



RT: 2.00
Area: 49507
Amount: 0.064630
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:36:28

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL05.d

Injection Date: 22-Sep-2020 19:30:30

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

2

Worklist Smp#: 5

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

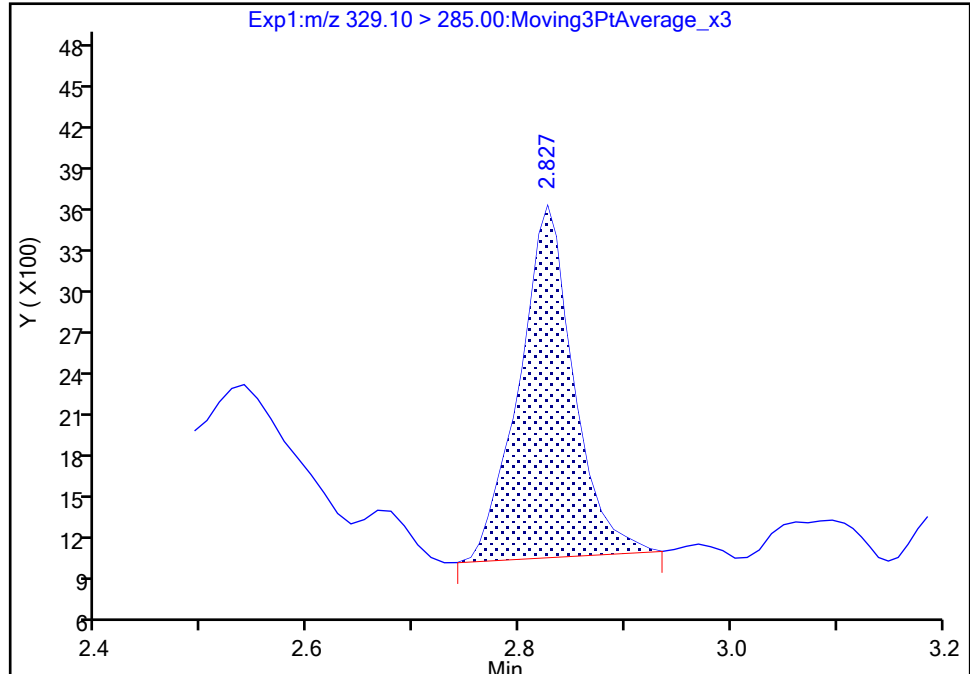
Detector: EXP1

67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

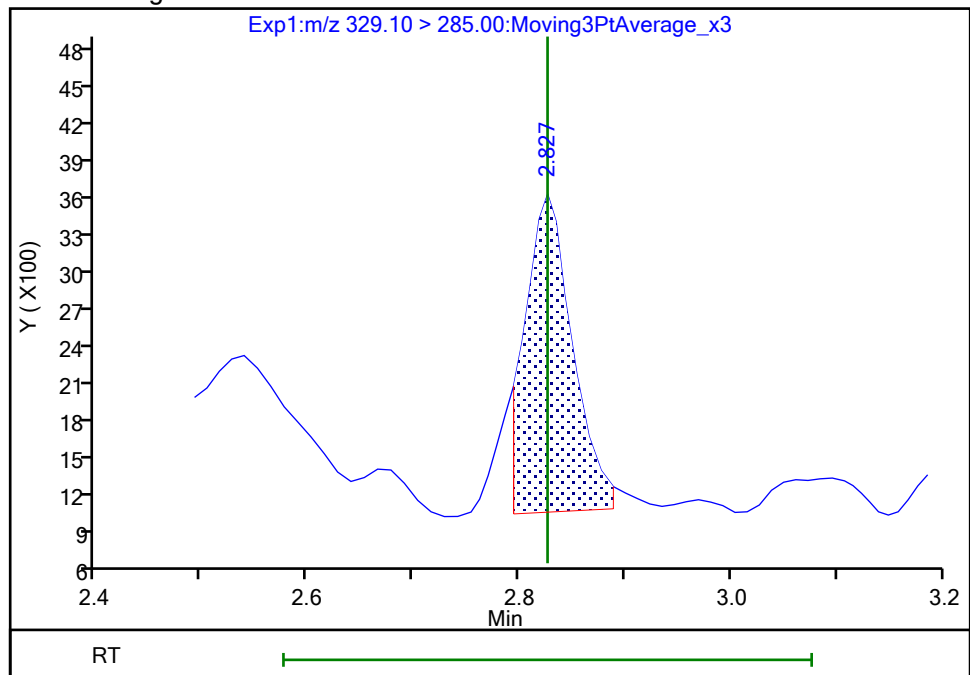
RT: 2.83
Area: 9024
Amount: 0.072437
Amount Units: ng/ml

Processing Integration Results



RT: 2.83
Area: 7693
Amount: 0.063974
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:51:04

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL05.d

Injection Date: 22-Sep-2020 19:30:30

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

2

Worklist Smp#: 5

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

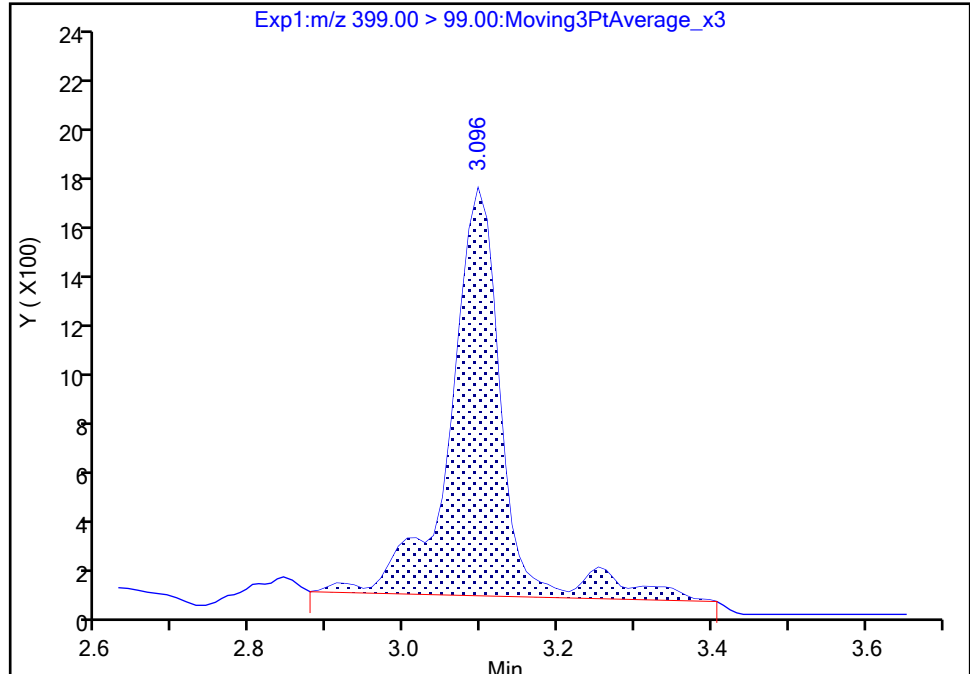
Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

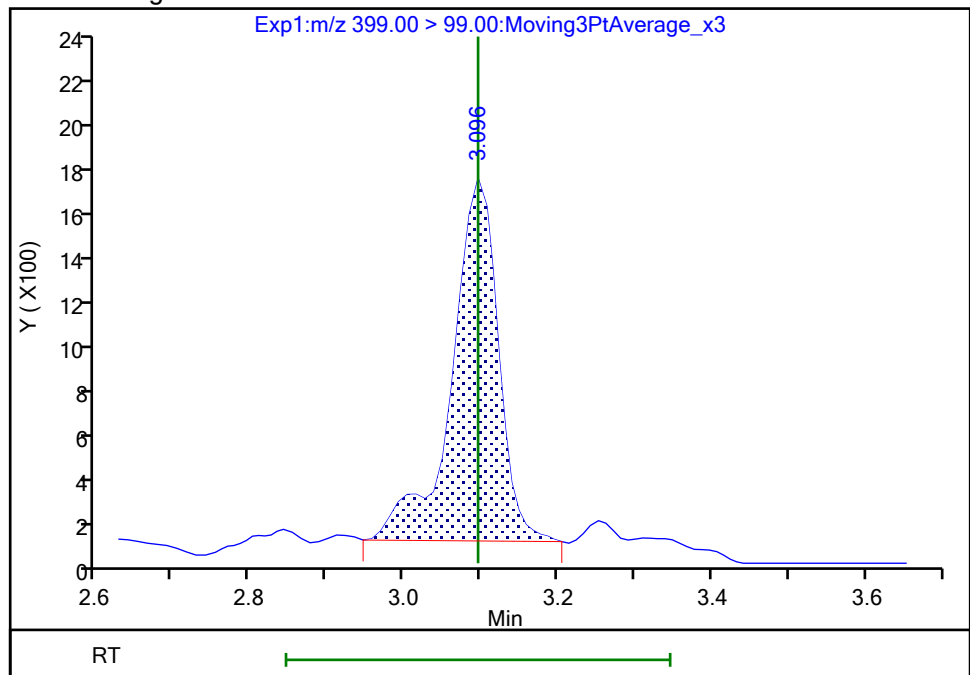
RT: 3.10
Area: 7770
Amount: 0.054572
Amount Units: ng/ml

Processing Integration Results



RT: 3.10
Area: 6717
Amount: 0.054572
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:36:48

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

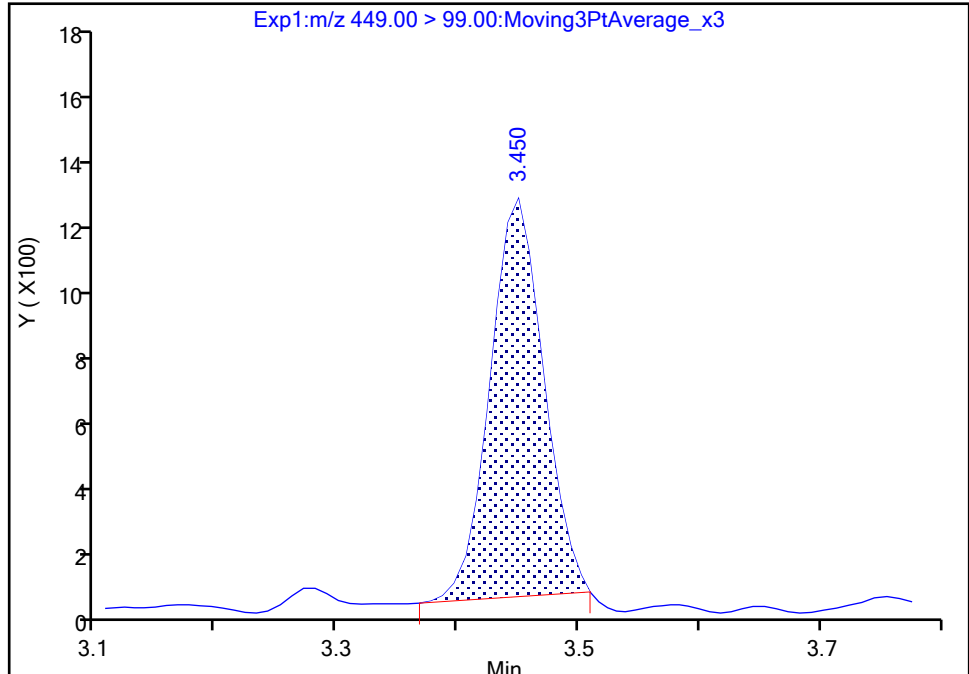
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL05.d
Injection Date: 22-Sep-2020 19:30:30 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

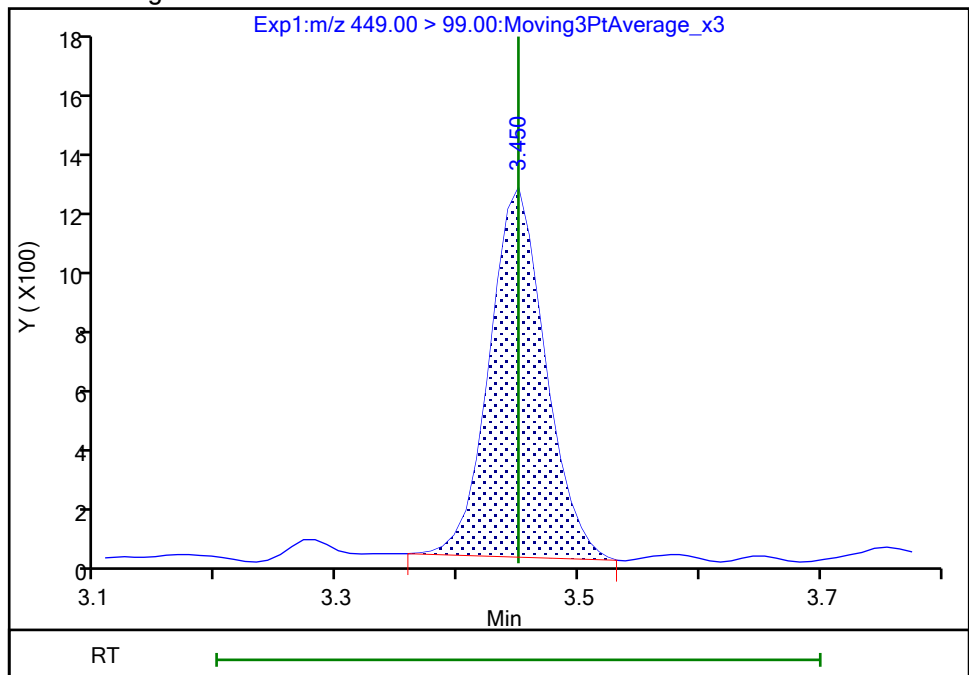
RT: 3.45
Area: 3702
Amount: 0.054337
Amount Units: ng/ml

Processing Integration Results



RT: 3.45
Area: 3978
Amount: 0.054337
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:36:56

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL05.d

Injection Date: 22-Sep-2020 19:30:30

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

2

Worklist Smp#: 5

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

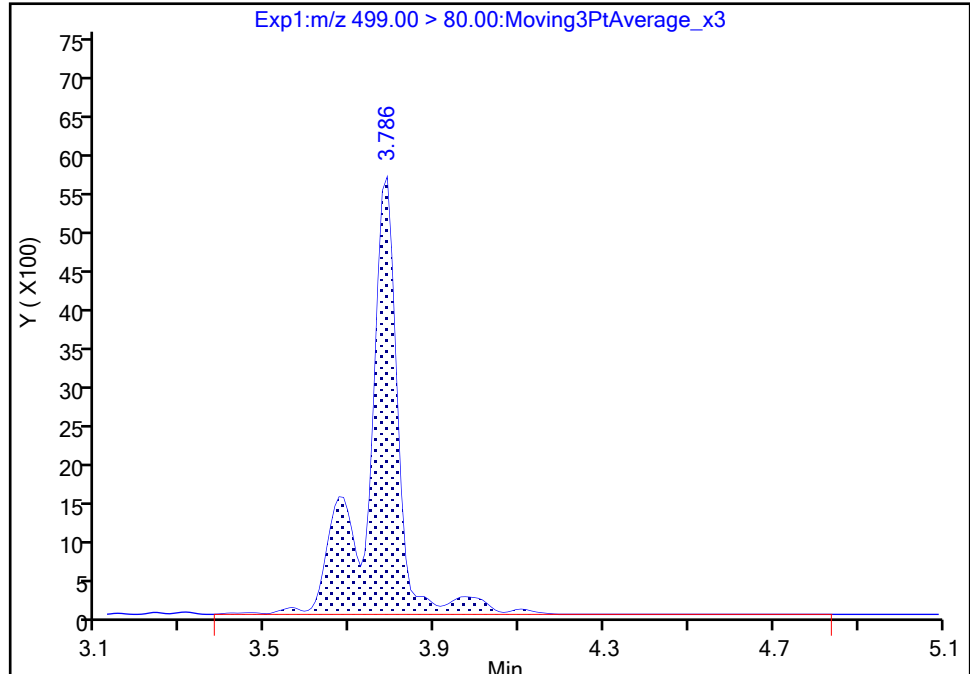
Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

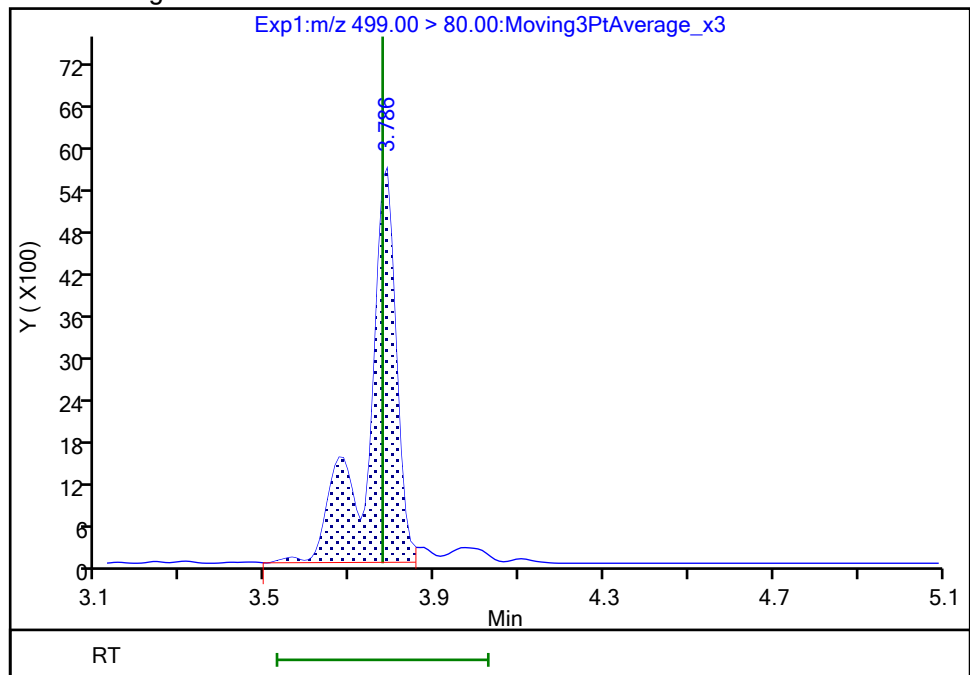
RT: 3.79
Area: 29070
Amount: 0.061062
Amount Units: ng/ml

Processing Integration Results



RT: 3.79
Area: 26536
Amount: 0.057748
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:37:14

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL05.d

Injection Date: 22-Sep-2020 19:30:30

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

2

Worklist Smp#: 5

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

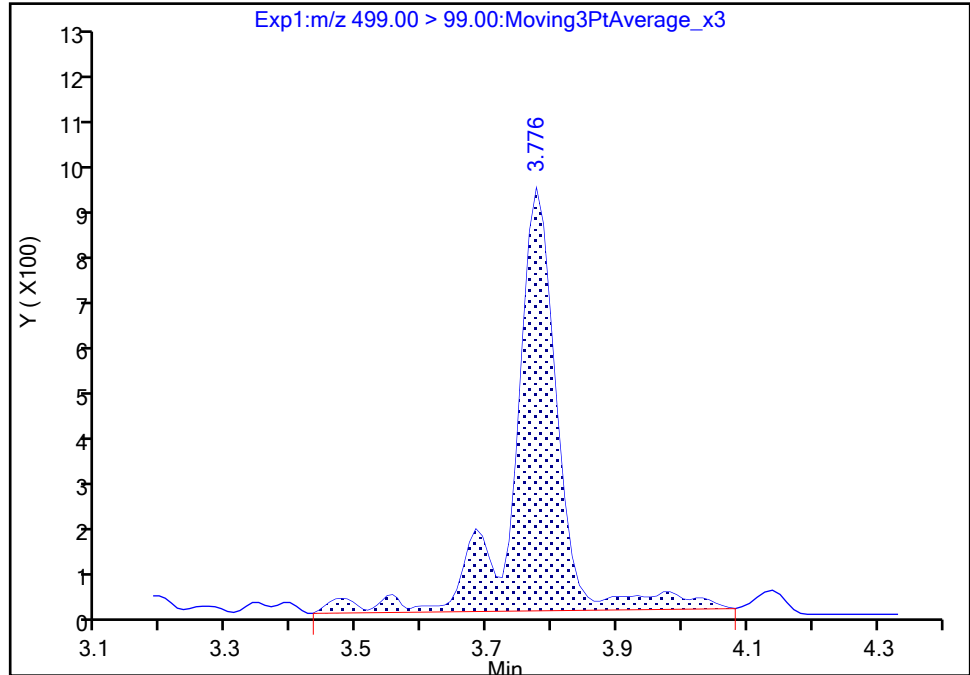
EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

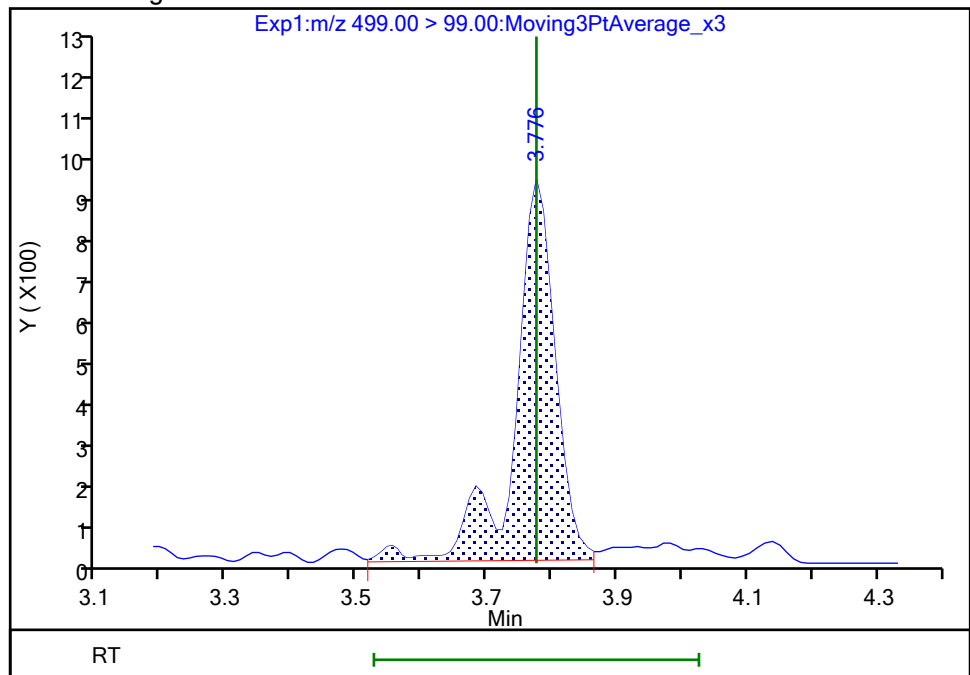
RT: 3.78
Area: 4261
Amount: 0.061062
Amount Units: ng/ml

Processing Integration Results



RT: 3.78
Area: 3884
Amount: 0.057748
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:37:22

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL05.d

Injection Date: 22-Sep-2020 19:30:30

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

2

Worklist Smp#: 5

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

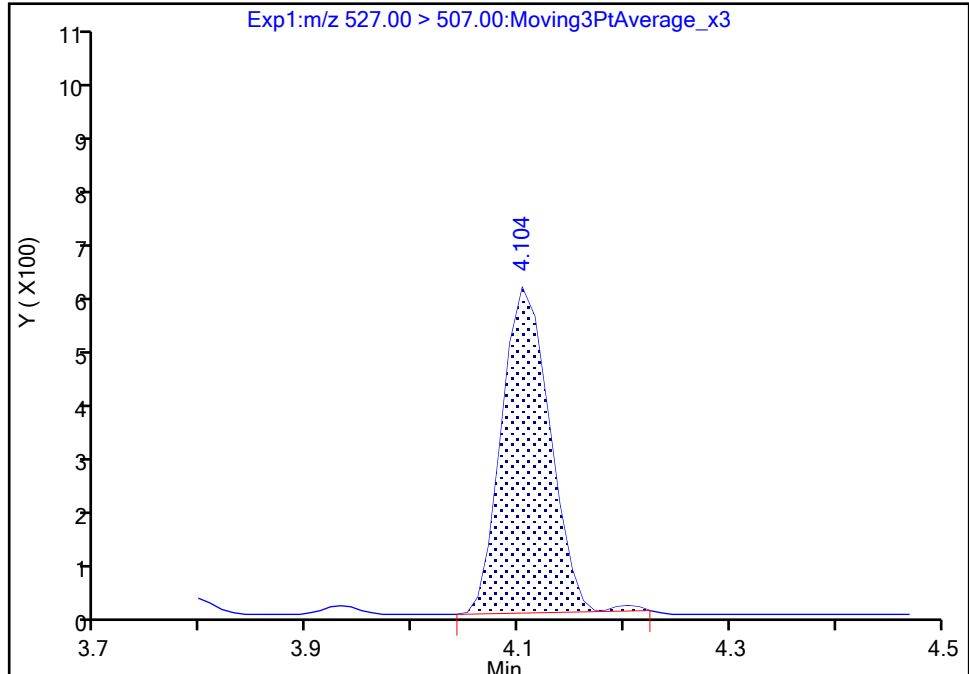
Detector: EXP1

25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

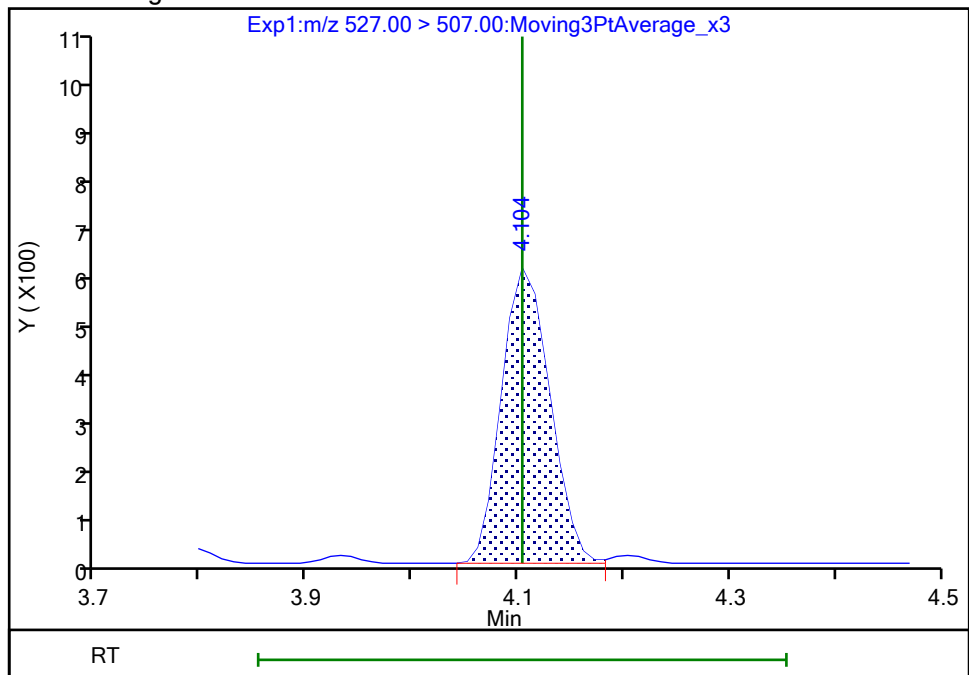
RT: 4.10
Area: 1909
Amount: 0.055807
Amount Units: ng/ml

Processing Integration Results



RT: 4.10
Area: 1915
Amount: 0.055948
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:37:41

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

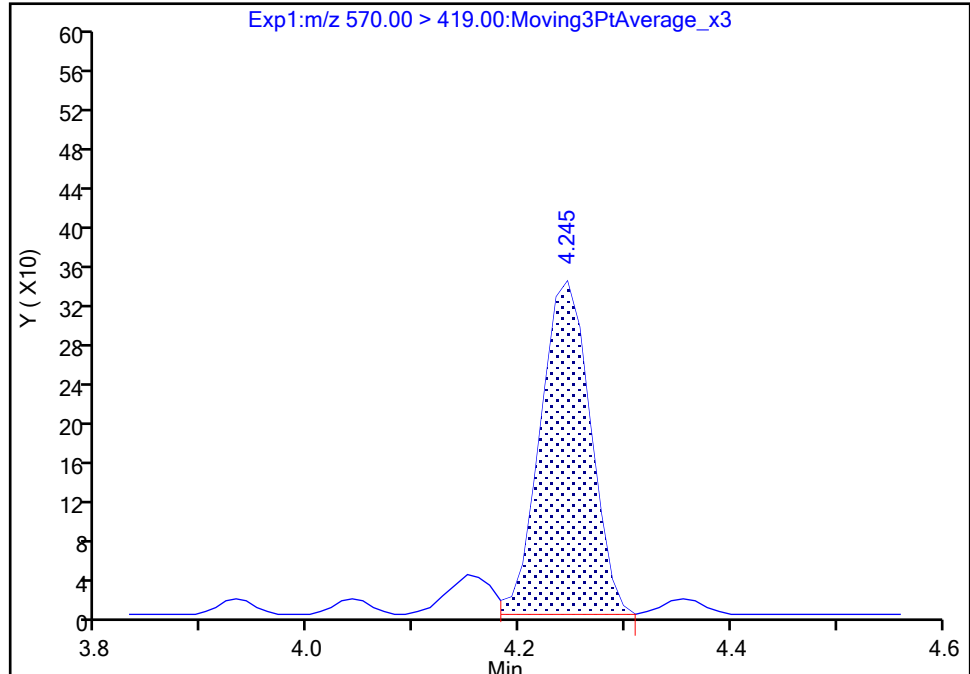
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL05.d
Injection Date: 22-Sep-2020 19:30:30 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

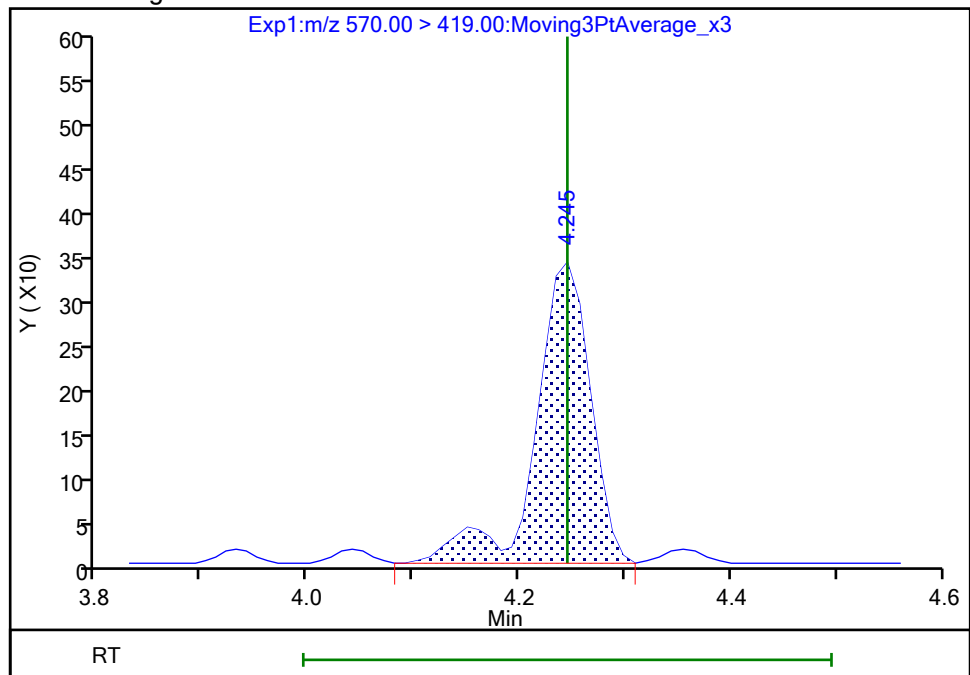
RT: 4.25
Area: 1121
Amount: 0.049832
Amount Units: ng/ml

Processing Integration Results



RT: 4.25
Area: 1238
Amount: 0.051642
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:37:50

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL05.d

Injection Date: 22-Sep-2020 19:30:30

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

2

Worklist Smp#: 5

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

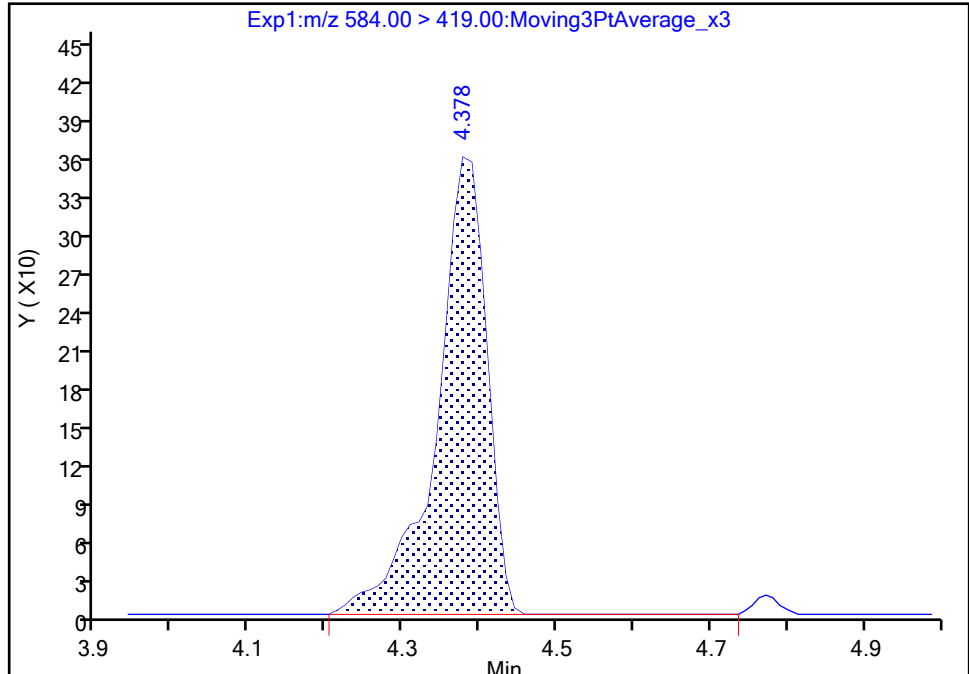
Detector: EXP1

33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

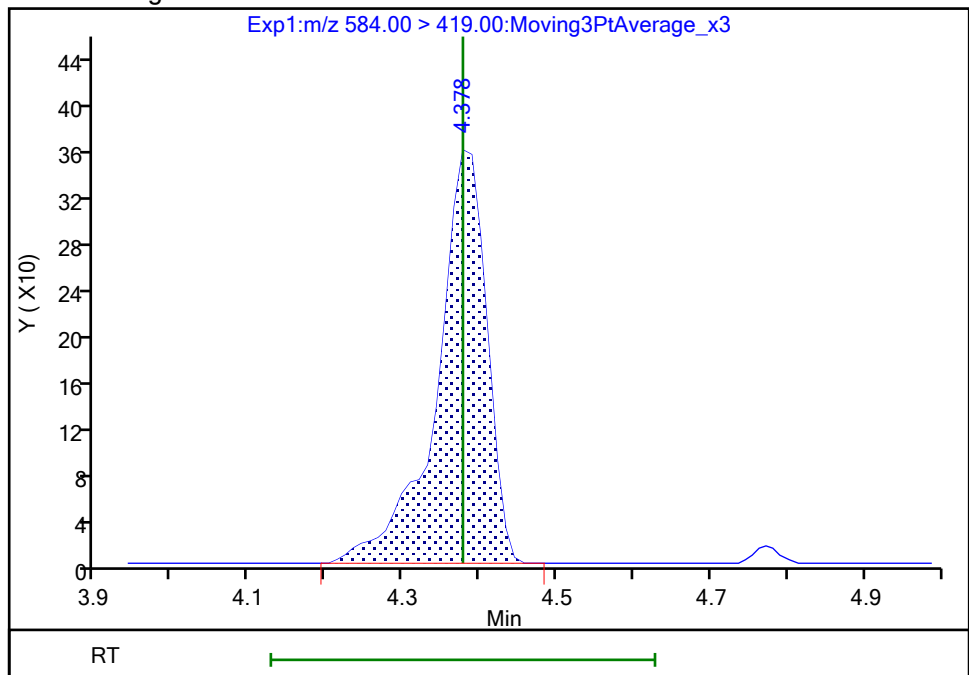
RT: 4.38
Area: 1619
Amount: 0.057422
Amount Units: ng/ml

Processing Integration Results



RT: 4.38
Area: 1619
Amount: 0.057982
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:37:56

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL05.d

Injection Date: 22-Sep-2020 19:30:30

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

2

Worklist Smp#: 5

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

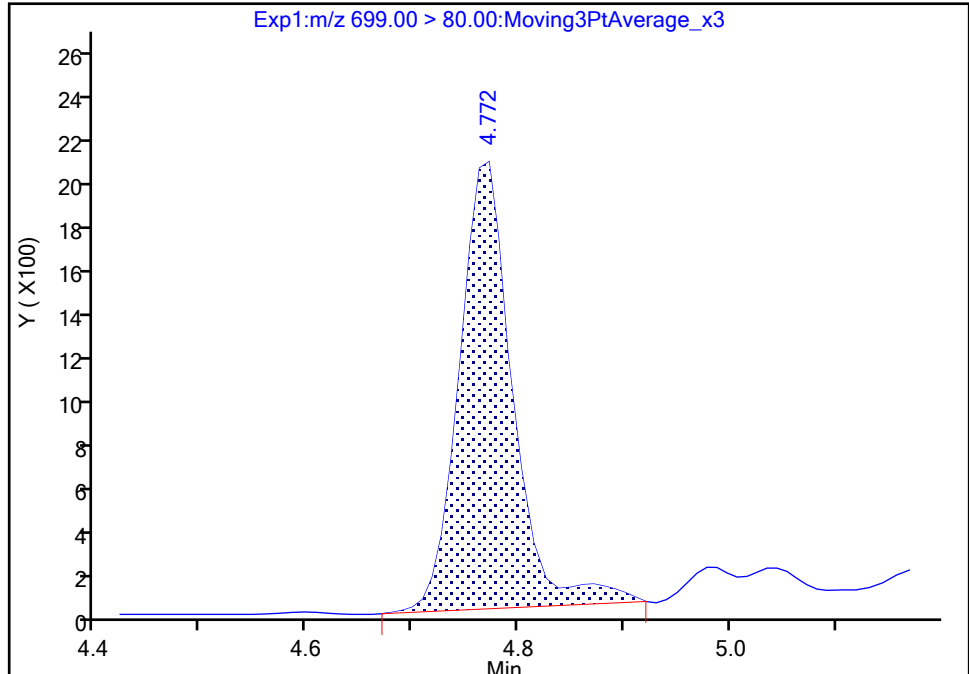
Detector: EXP1

75 Perfluorododecanesulfonic acid (, CAS: 79780-39-5

Signal: 1

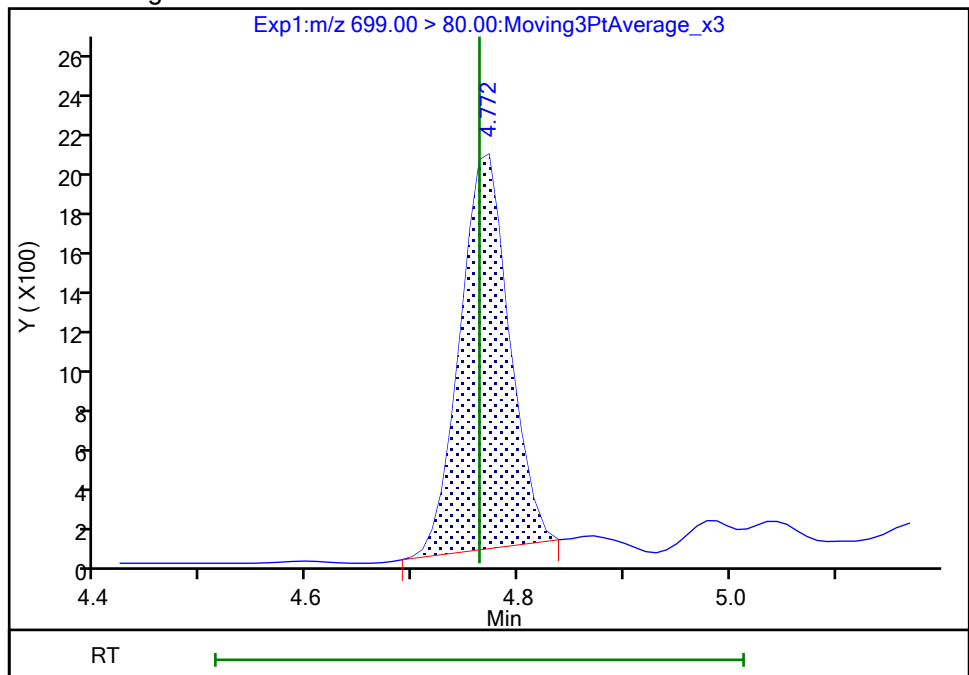
RT: 4.77
Area: 7187
Amount: 0.071876
Amount Units: ng/ml

Processing Integration Results



RT: 4.77
Area: 6464
Amount: 0.066296
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:38:04

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL06.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 22-Sep-2020 19:38:46 ALS Bottle#: 3 Worklist Smp#: 6
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: IC
 Misc. Info.: 200-0042904-006 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Sublist: chrom-PFC_LC812*sub3
 Method: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 23-Sep-2020 10:27:04 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1050

First Level Reviewer: chirgwinb

Date: 23-Sep-2020 09:32:19

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.990	1.990	0.0	0.575	1037724	1.28		102	7294	
2 Perfluorobutanoic acid										
212.90 > 169.00	1.999	2.000	-0.001	1.005	82833	0.1067		107	12.7	
D 3 13C5 PFPeA										
267.90 > 223.00	2.339	2.339	0.0	0.676	753884	1.29		103	3312	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.339	2.339	0.0	1.000	68603	0.1077		108	4.0	M
D 47 13C3 PFBS										
301.90 > 80.00	2.339	2.353	-0.014	0.676	832503	1.17		101	223348	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.353	2.353	0.0	1.006	64112	0.0898	Target=1.99	102	212	
298.90 > 99.00	2.353	2.353	0.0	1.006	33725		1.90(1.00-2.99)	102	54.5	
61 1H,1H,2H,2H-perfluorohexanesulfo										
327.00 > 307.00	2.665	2.678	-0.013	1.000	7881	0.0918		98.3	233	
D 60 M2-4:2 FTS										
329.00 > 81.00	2.665	2.678	-0.013	0.771	62030	1.16		99.7	164	
D 7 13C2 PFHxA										
315.00 > 270.00	2.703	2.716	-0.013	0.782	785597	1.31		105	4060	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.703	2.716	-0.013	1.000	66975	0.1058	Target=11.58	106	25.1	
313.00 > 119.00	2.703	2.716	-0.013	1.000	6288		10.65(5.79-17.37)	106	18.9	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.716	2.716	0.0	0.881	55204	0.0890	Target=3.36	94.9	277	
349.00 > 99.00	2.716	2.716	0.0	0.881	17854		3.09(1.68-5.05)	94.9	103	
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.818	2.818	0.0	0.815	62681	1.12		89.7	811	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
67 Perfluoro(2-propoxypropanoic) ac										M
329.10 > 285.00	2.818	2.826	-0.008	1.000	12283	0.1151		115	2.6	M
D 11 18O2 PFHxS										
403.00 > 84.00	3.084	3.084	0.0	0.892	619406	1.22		103	2344	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.084	3.096	-0.012	1.000	53509	0.0925	Target=4.59	102	194	
399.00 > 99.00	3.084	3.096	-0.012	1.000	11593		4.62(2.29-6.88)	102	29.2	
10 Perfluoroheptanoic acid										M
363.00 > 319.00	3.096	3.096	0.0	1.000	58588	0.1041	Target=3.29	104	31.1	M
363.00 > 169.00	3.096	3.096	0.0	1.000	16759		3.50(1.65-4.94)	104	73.0	
D 9 13C4 PFHpA										
367.00 > 322.00	3.096	3.096	0.0	0.895	701789	1.29		103	6009	
77 DONA										
377.00 > 251.00	3.131	3.132	-0.001	0.830	127932	0.1001	Target=2.40	106	448	
377.00 > 85.00	3.131	3.132	-0.001	0.830	51074		2.50(1.20-3.60)	106	144	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.450	3.450	0.0	0.914	47450	0.0987	Target=6.94	104	466	
449.00 > 99.00	3.450	3.450	0.0	0.914	6479		7.32(3.47-10.41)	104	73.6	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.450	3.450	0.0	0.998	80244	1.18		99.3	693	
13 1H,1H,2H,2H-perfluorooctanesulfo										
427.00 > 407.00	3.450	3.450	0.0	1.000	6017	0.1116		118	174	
D 14 13C4 PFOA										
417.00 > 372.00	3.458	3.458	0.0	1.000	722671	1.29		103	3143	
* 62 13C2 PFOA										
415.00 > 370.00	3.458	3.458	0.0		709327	1.25			2377	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.458	3.458	0.0	1.000	63800	0.1069	Target=2.26	107	32.2	
413.00 > 169.00	3.458	3.458	0.0	1.000	28315		2.25(1.13-3.38)	107	79.3	
D 18 13C4 PFOS										
503.00 > 80.00	3.775	3.776	-0.001	1.092	495742	1.19		99.6	1775	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.775	3.776	-0.001	1.000	41988	0.0931	Target=6.66	100	106	M
499.00 > 99.00	3.775	3.776	-0.001	1.000	6947		6.04(3.33-9.99)	100	83.2	M
D 19 13C5 PFNA										
468.00 > 423.00	3.796	3.797	-0.001	1.098	612495	1.30		104	5209	
20 Perfluorononanoic acid										
463.00 > 419.00	3.796	3.797	-0.001	1.000	53981	0.1082	Target=6.07	108	21.6	
463.00 > 169.00	3.796	3.797	-0.001	1.000	8067		6.69(3.03-9.10)	108	203	
69 9-Chlorohexadecafluoro-3-oxanona										
531.00 > 351.00	3.940	3.941	-0.001	1.044	39360	0.0992		106	443	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.061	4.072	-0.011	1.076	35491	0.0996	Target=3.49	104	487	
549.00 > 99.00	4.061	4.072	-0.011	1.076	10838		3.27(1.75-5.24)	104	97.1	
24 Perfluorodecanoic acid										
513.00 > 469.00	4.091	4.092	-0.001	1.000	49783	0.1040	Target=6.79	104	84.4	
513.00 > 169.00	4.091	4.092	-0.001	1.000	8088		6.16(3.39-10.18)	104	138	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 23 13C2 PFDA										
515.00 > 470.00	4.091	4.092	-0.001	1.183	604855	1.34		107	5318	
25 1H,1H,2H,2H-perfluorodecanesulfo										
527.00 > 507.00	4.114	4.103	0.011	1.003	2921	0.0848		88.5	80.6	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.103	4.103	-0.001	1.186	104254	1.30		109	1163	
D 21 13C8 FOSA										
506.00 > 78.00	4.150	4.151	-0.001	1.200	902363	1.24		99.2	3493	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.150	4.151	-0.001	1.000	74962	0.1111		111	232	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.235	4.235	0.0	1.225	32875	1.28		102	1041	
28 N-methylperfluorooctanesulfonami										
570.00 > 419.00	4.235	4.245	-0.010	1.000	3014	0.1214		121	15.6	M
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.332	4.332	0.0	1.148	31388	0.1053	Target=3.11	109	258	
599.00 > 99.00	4.332	4.332	0.0	1.148	9919		3.16(1.55-4.66)	109	94.6	
D 30 13C2 PFUnA										
565.00 > 520.00	4.355	4.355	0.0	1.259	457385	1.34		107	3673	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.355	4.355	0.0	1.000	35149	0.0974	Target=6.33	97.4	47.5	
563.00 > 169.00	4.355	4.355	0.0	1.000	5421		6.48(3.17-9.50)	97.4	117	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.366	4.366	0.0	1.263	35898	1.30		104	509	
33 N-ethylperfluorooctanesulfonamid										
584.00 > 419.00	4.366	4.378	-0.012	1.000	3309	0.1259		126	101	M
66 11-Chloroeicosafuoro-3-oxaundec										
631.00 > 451.00	4.444	4.444	0.0	1.177	33859	0.0989		105	855	
D 36 13C2 PFDaA										
615.00 > 570.00	4.585	4.585	0.0	1.326	445040	1.24		98.8	3504	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.585	4.585	0.0	1.000	34516	0.0994	Target=5.23	99.4	30.7	
613.00 > 169.00	4.585	4.585	0.0	1.000	6911		4.99(2.62-7.85)	99.4	216	
74 1H,1H,2H,2H-perfluorododecanesul										
627.00 > 607.00	4.610	4.610	0.0	1.124	1775	0.0927		96.2	65.1	
75 Perfluorododecanesulfonic acid (										
699.00 > 80.00	4.763	4.763	0.0	1.262	9167	0.0958	Target=0.47	99.0	37.4	
699.00 > 99.00	4.763	4.763	0.0	1.262	21918		0.42(0.23-0.70)	99.0	394	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.790	4.802	-0.012	1.045	33638	0.1141	Target=3.57	114	23.9	
663.00 > 169.00	4.803	4.802	0.001	1.047	8975		3.75(1.78-5.35)	114	208	
D 43 13C2 PFTeDA										
715.00 > 670.00	4.997	4.998	-0.001	1.445	322915	1.26		101	4114	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.997	4.998	-0.001	1.000	6510	0.1100	Target=1.07	110	209	
713.00 > 219.00	4.988	4.998	-0.010	0.998	6300		1.03(0.54-1.61)	110	233	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 44 13C2 PFHxDA										
815.00 > 770.00	5.361	5.361	0.0	1.550	358275	1.23		98.6	3397	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.372	5.372	0.0	1.002	30217	0.0979	Target=3.00	97.9	24.5	
813.00 > 169.00	5.372	5.372	0.0	1.002	10469		2.89(1.50-4.49)	97.9	374	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.755	5.756	-0.001	1.073	24480	0.1143	Target=2.88	114	28.2	M
913.00 > 169.00	5.747	5.756	-0.009	1.072	8210		2.98(1.44-4.32)	114	293	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

PFAS32NCIC2_00005

Amount Added: 100.00

Units: uL

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL06.d

Injection Date: 22-Sep-2020 19:38:46

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#: 3

Worklist Smp#: 6

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

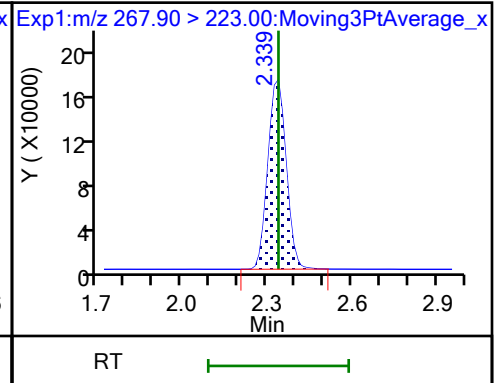
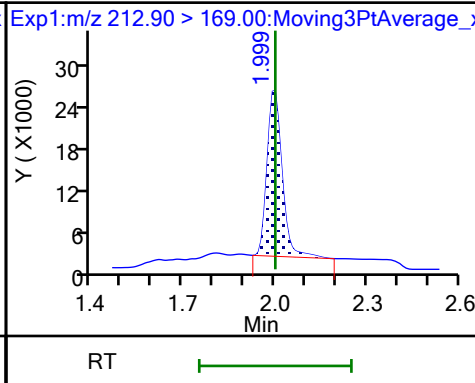
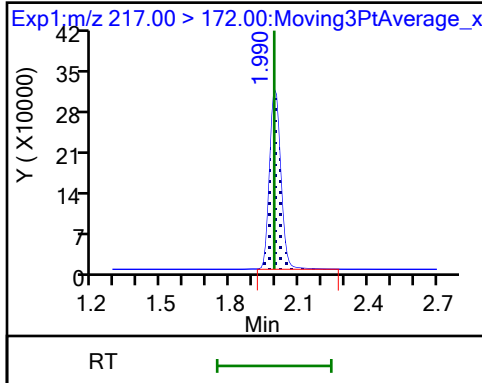
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid

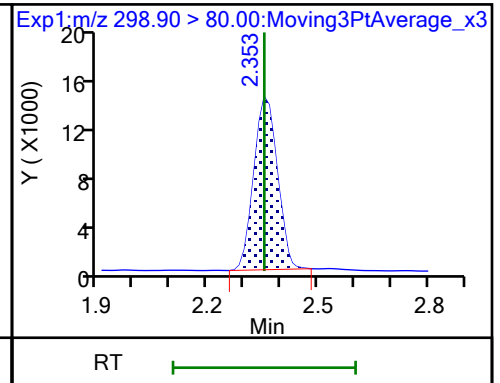
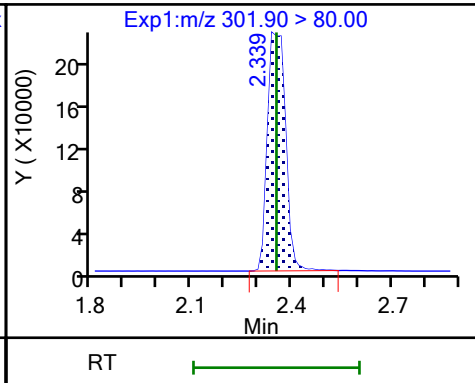
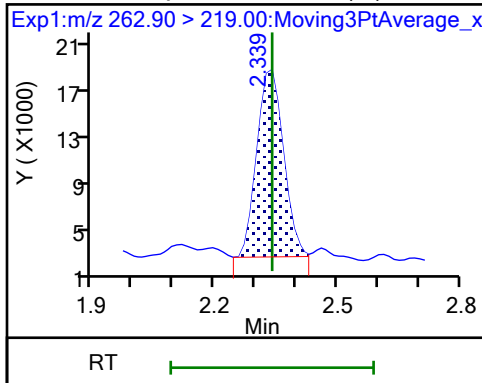
D 3 13C5 PFPeA



4 Perfluoropentanoic acid (M)

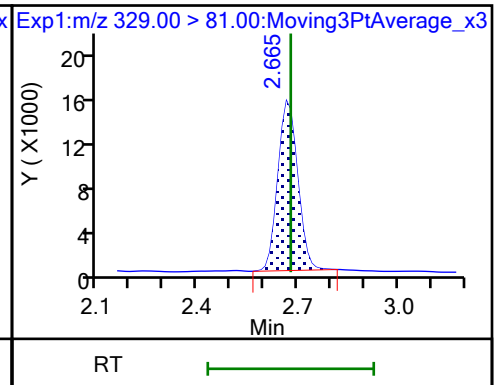
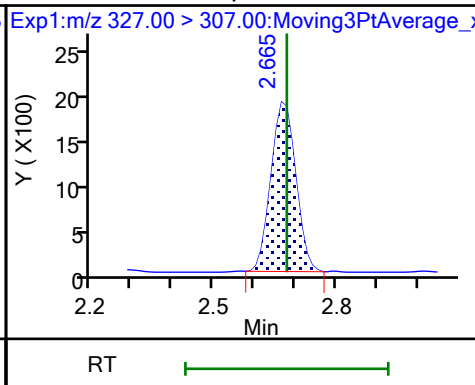
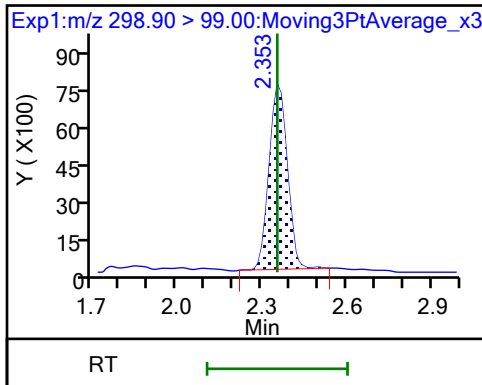
D 47 13C3 PFBS

5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

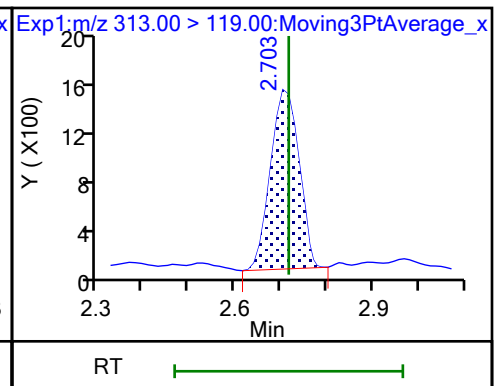
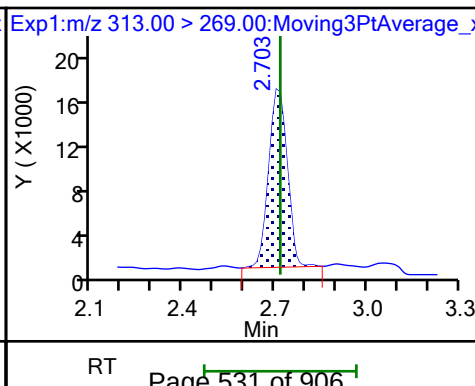
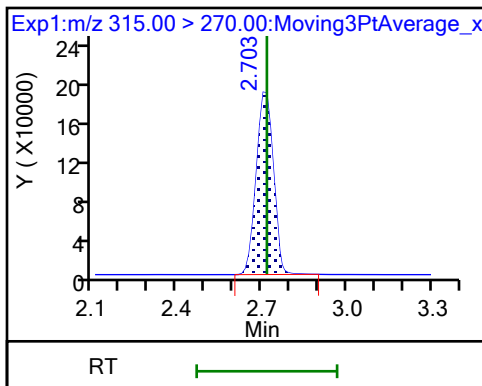
61 1H,1H,2H,2H-perfluorohexanesulfo D 60 M2-4:2 FTS

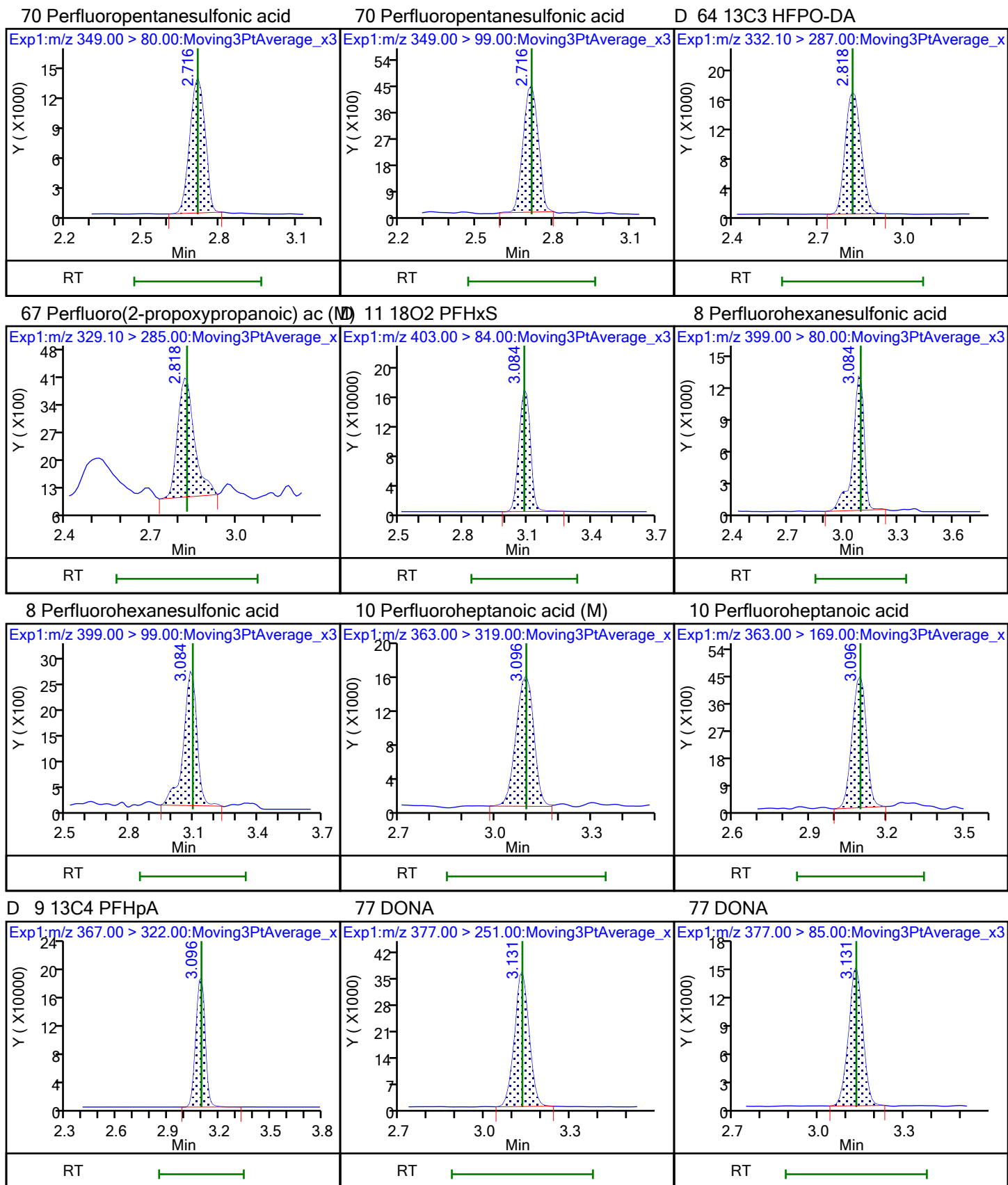


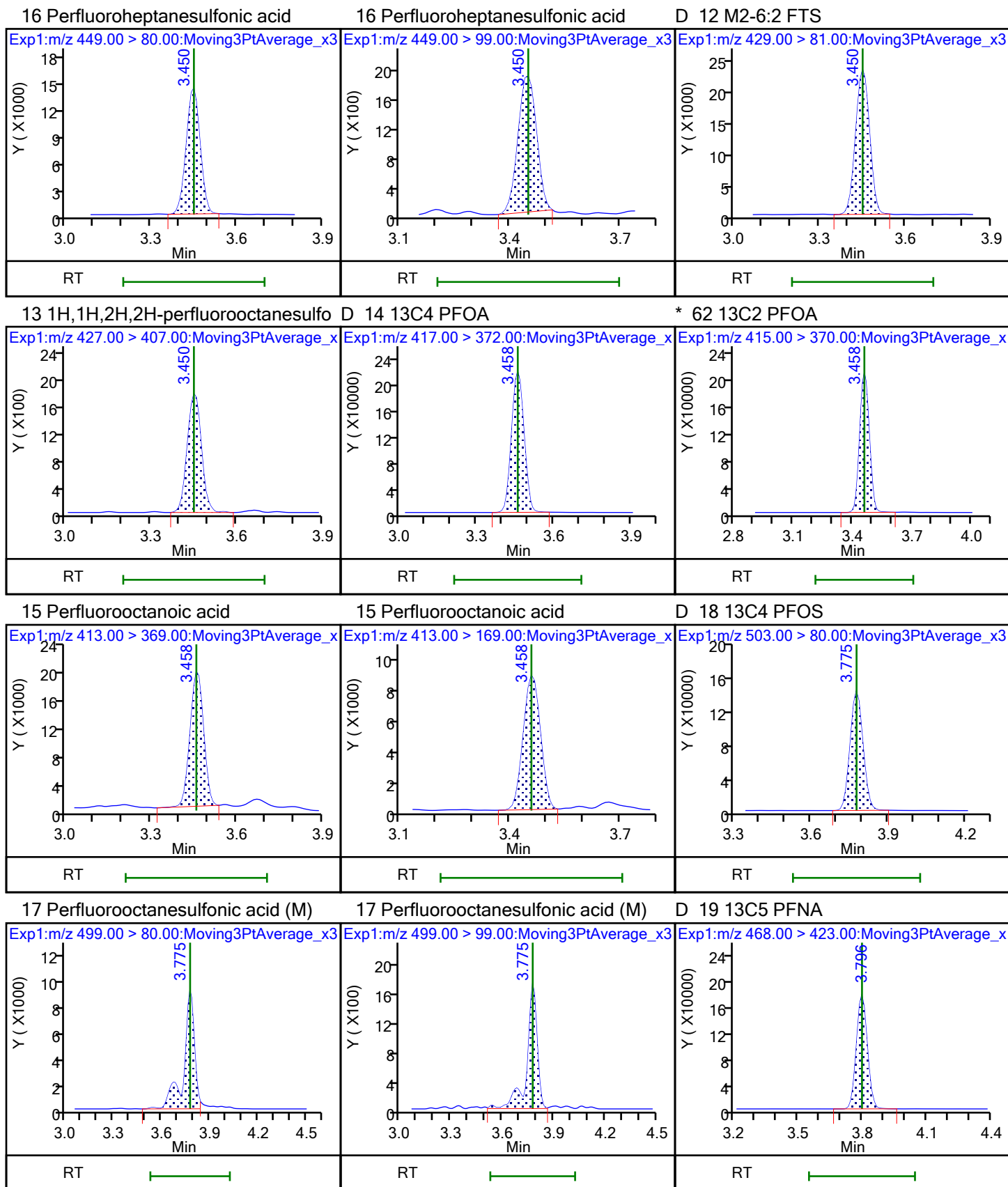
D 7 13C2 PFHxA

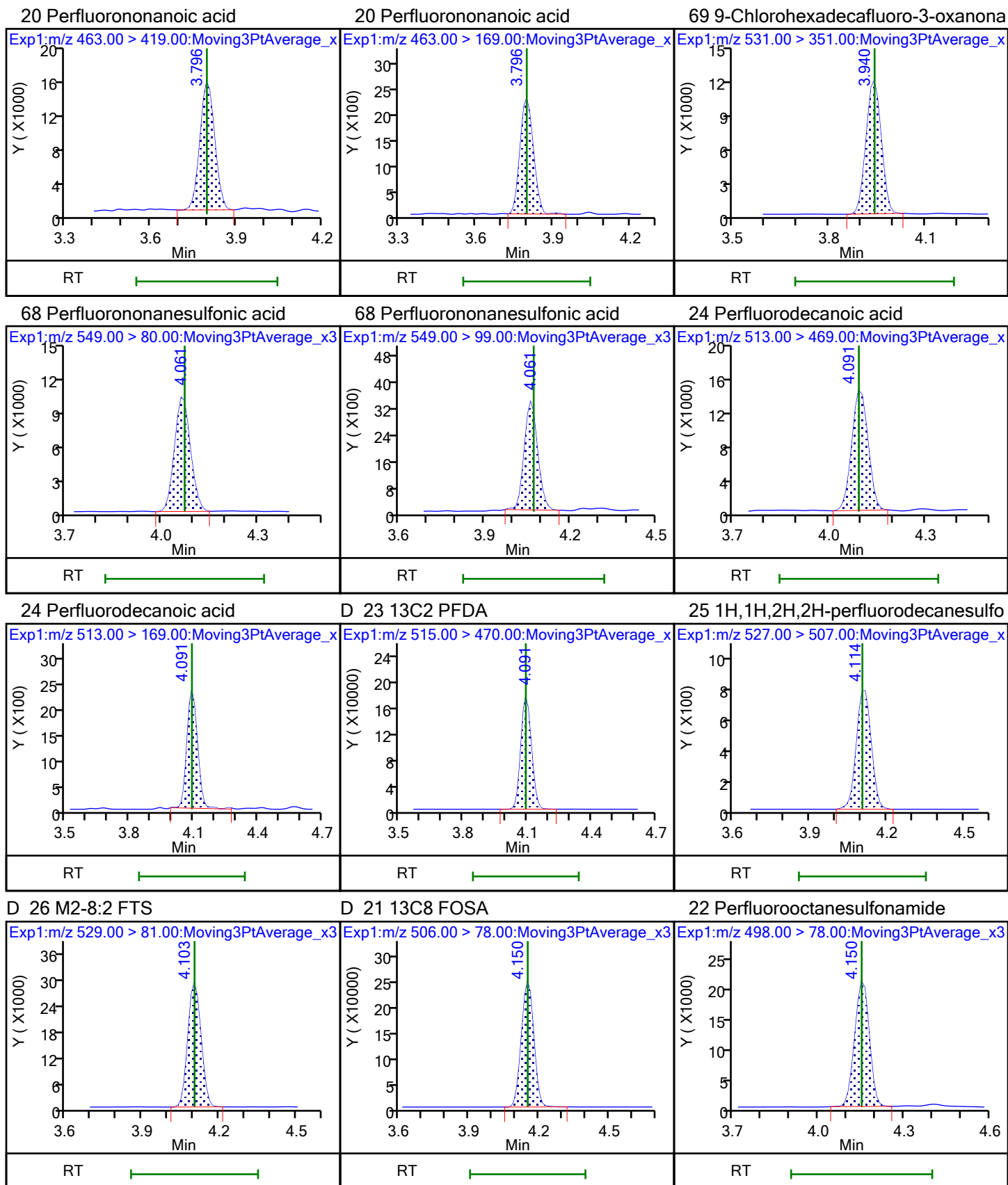
6 Perfluorohexanoic acid

6 Perfluorohexanoic acid





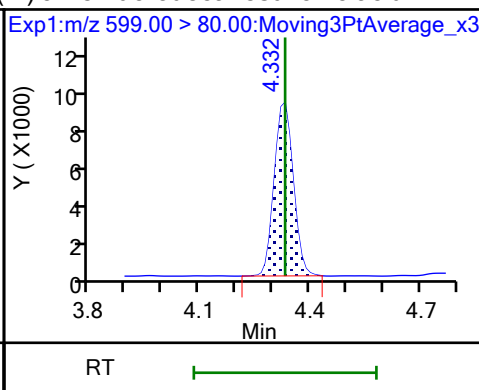
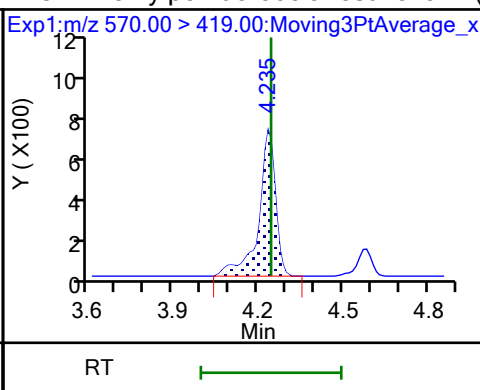
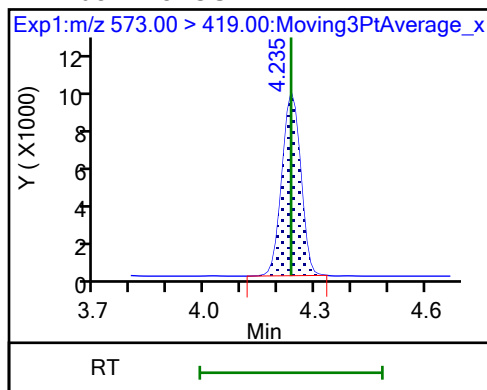




D 27 d3-NMeFOSAA

28 N-methylperfluorooctanesulfonami (M

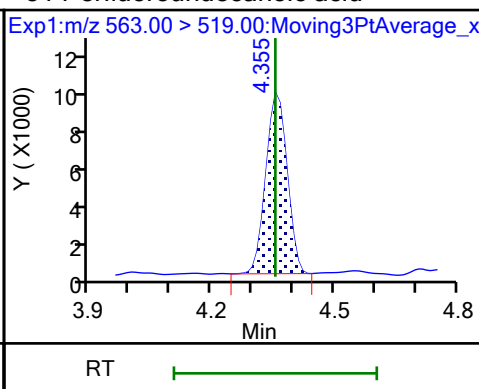
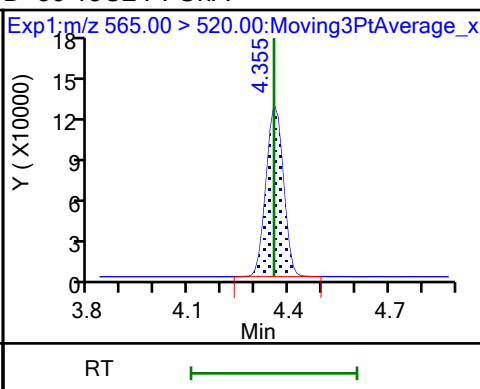
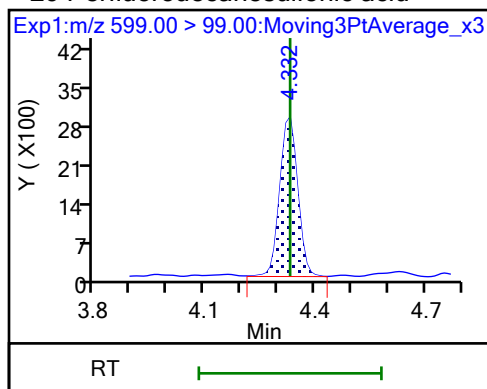
29 Perfluorodecanesulfonic acid



29 Perfluorodecanesulfonic acid

D 30 13C2 PFUnA

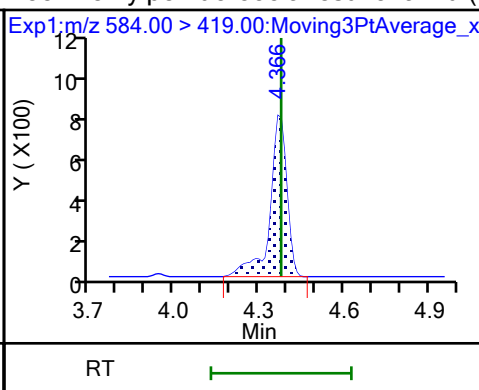
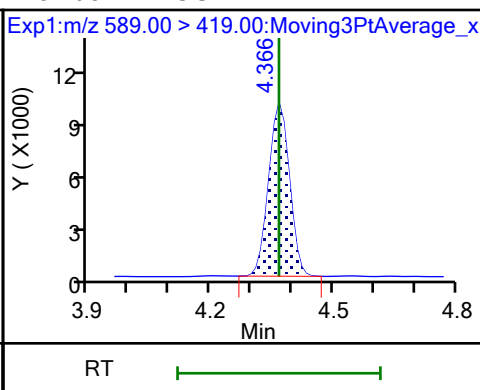
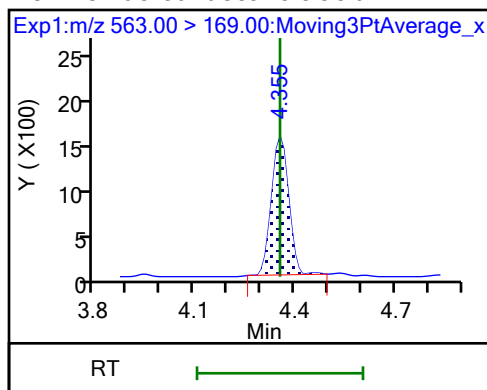
31 Perfluoroundecanoic acid



31 Perfluoroundecanoic acid

D 32 d5-NEtFOSAA

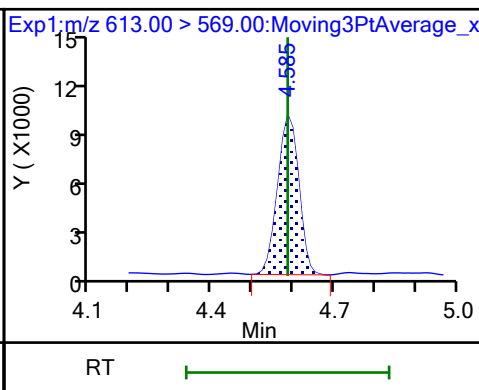
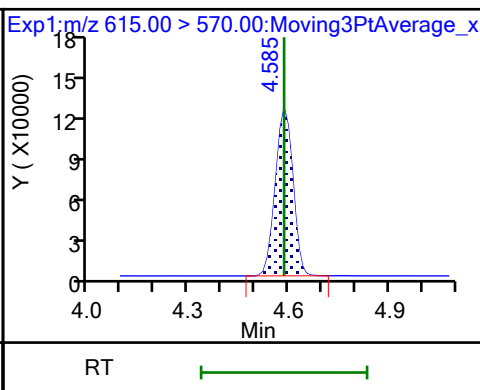
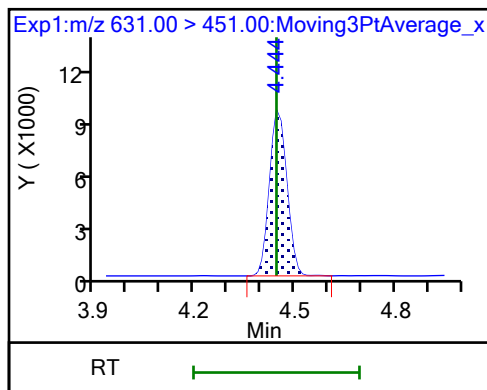
33 N-ethylperfluorooctanesulfonamid (M



66 11-Chloroeicosafluoro-3-oxaundec

D 36 13C2 PFDoA

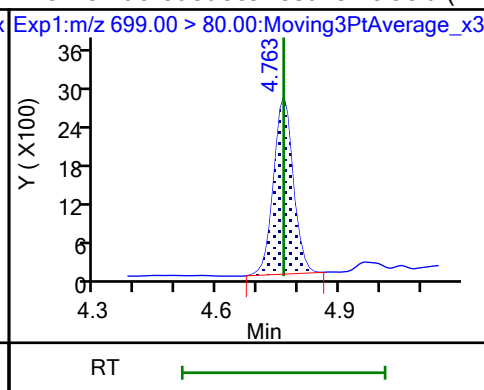
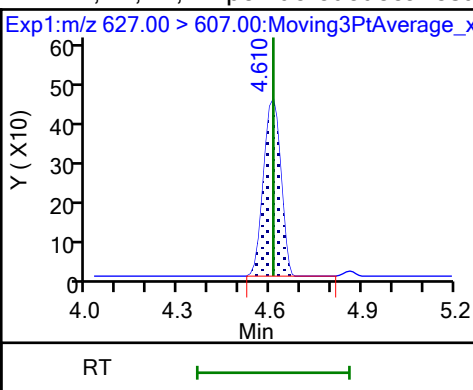
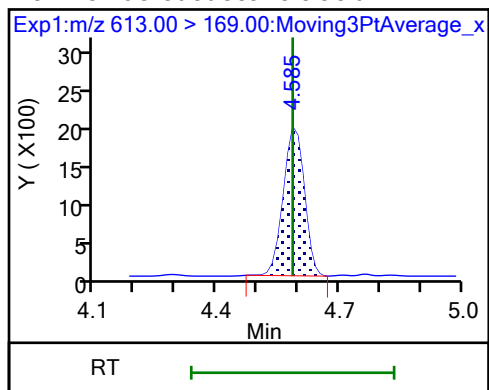
37 Perfluorododecanoic acid



37 Perfluorododecanoic acid

74 1H,1H,2H,2H-perfluorododecanesul

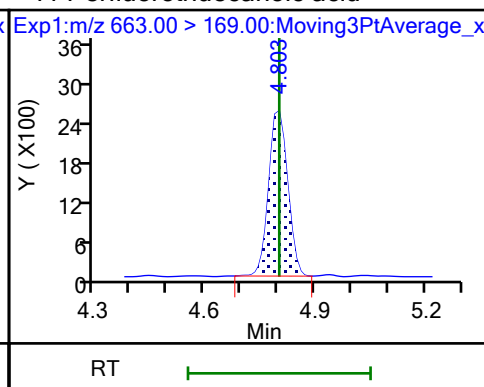
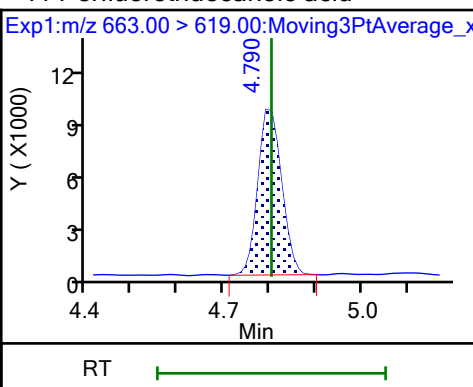
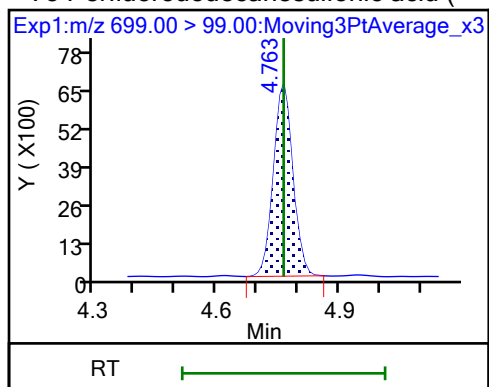
75 Perfluorododecanesulfonic acid (



75 Perfluorododecanesulfonic acid (

41 Perfluorotridecanoic acid

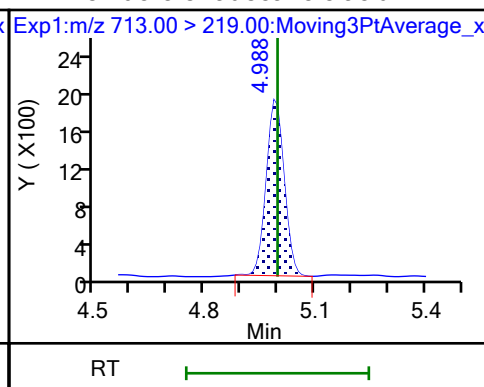
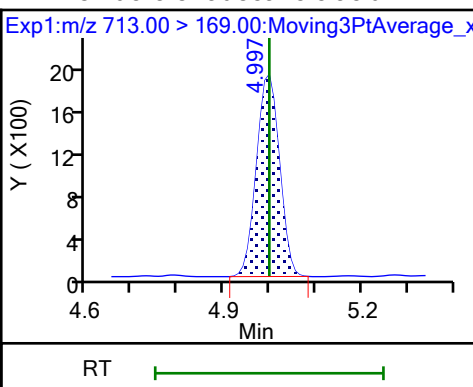
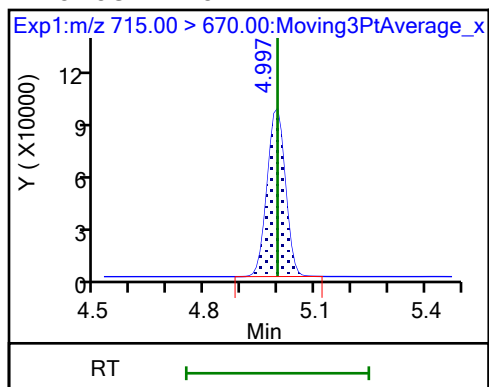
41 Perfluorotridecanoic acid



D 43 13C2 PFTeDA

42 Perfluorotetradecanoic acid

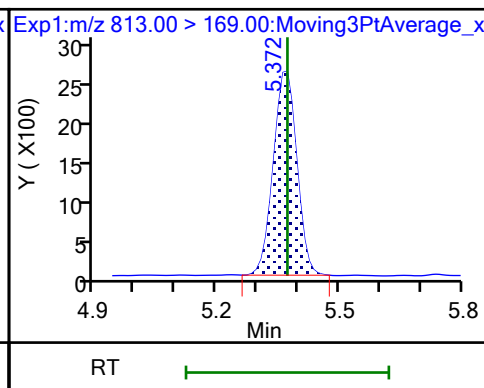
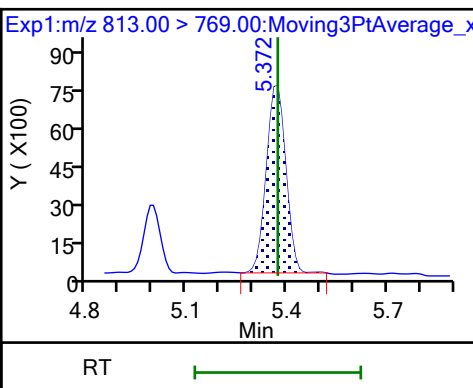
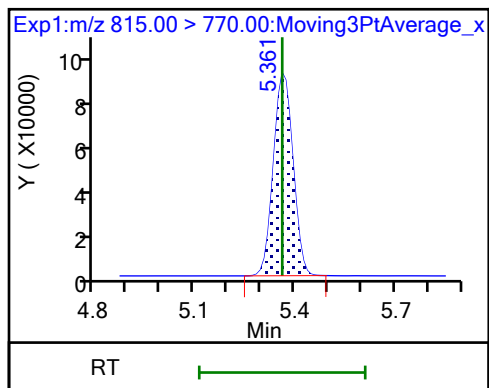
42 Perfluorotetradecanoic acid



D 44 13C2 PFHxDA

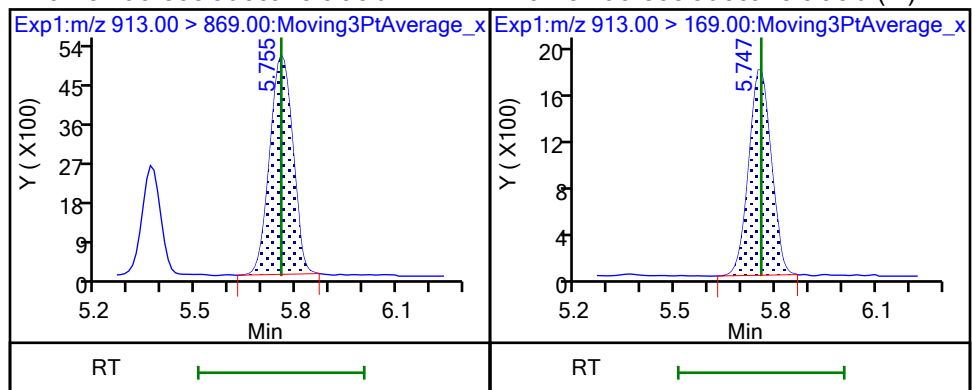
45 Perfluorohexadecanoic acid

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid

46 Perfluorooctadecanoic acid (M)



Eurofins TestAmerica, Burlington

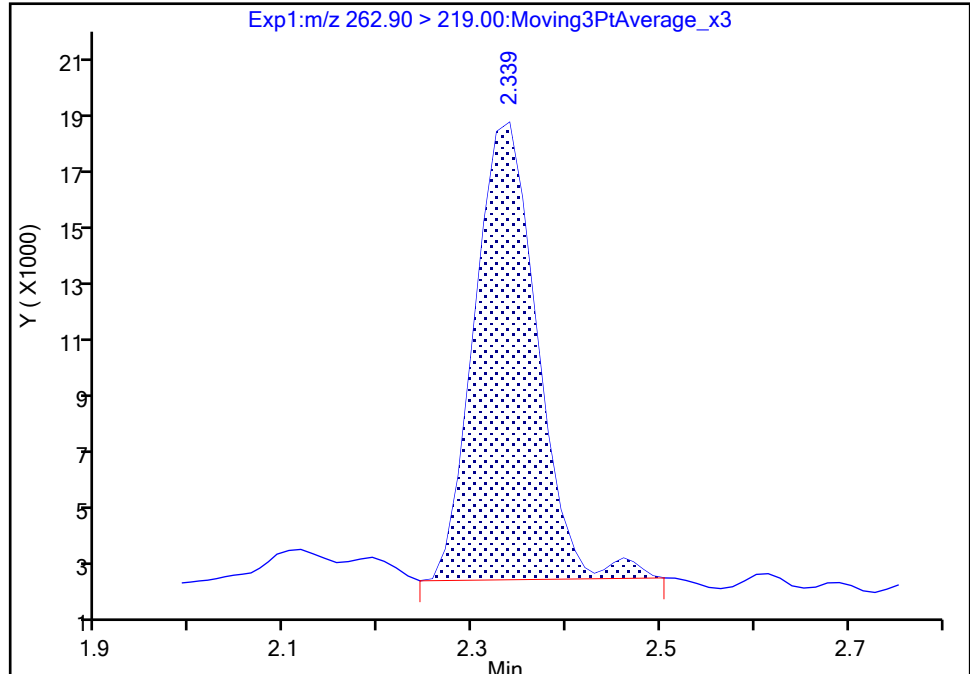
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Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

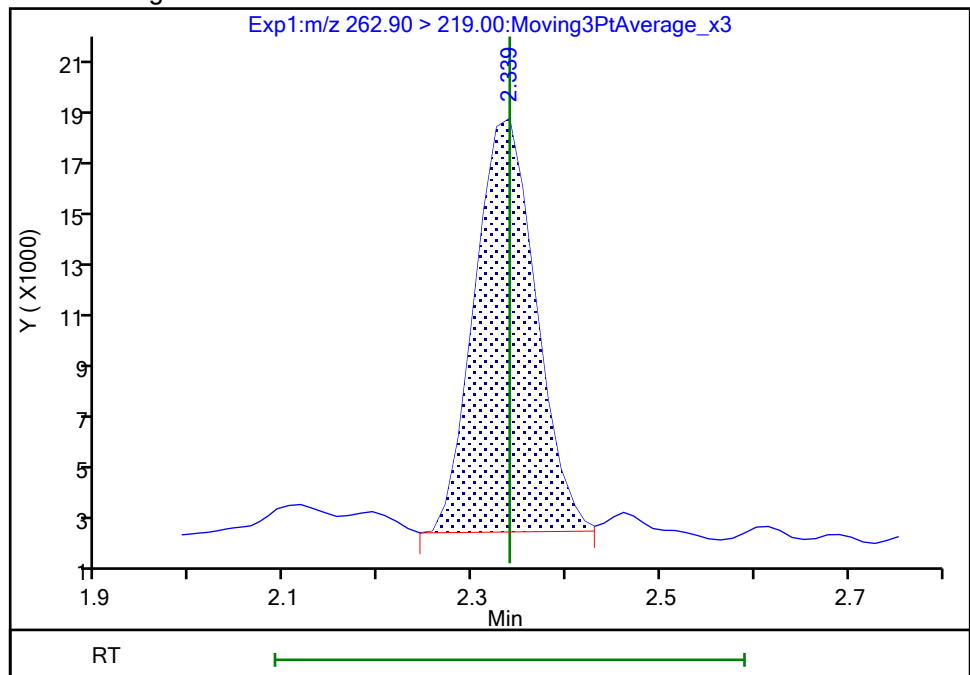
RT: 2.34
Area: 70137
Amount: 0.109677
Amount Units: ng/ml

Processing Integration Results



RT: 2.34
Area: 68603
Amount: 0.107709
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:38:25
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 538 of 906

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL06.d

Injection Date: 22-Sep-2020 19:38:46

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

3

Worklist Smp#: 6

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

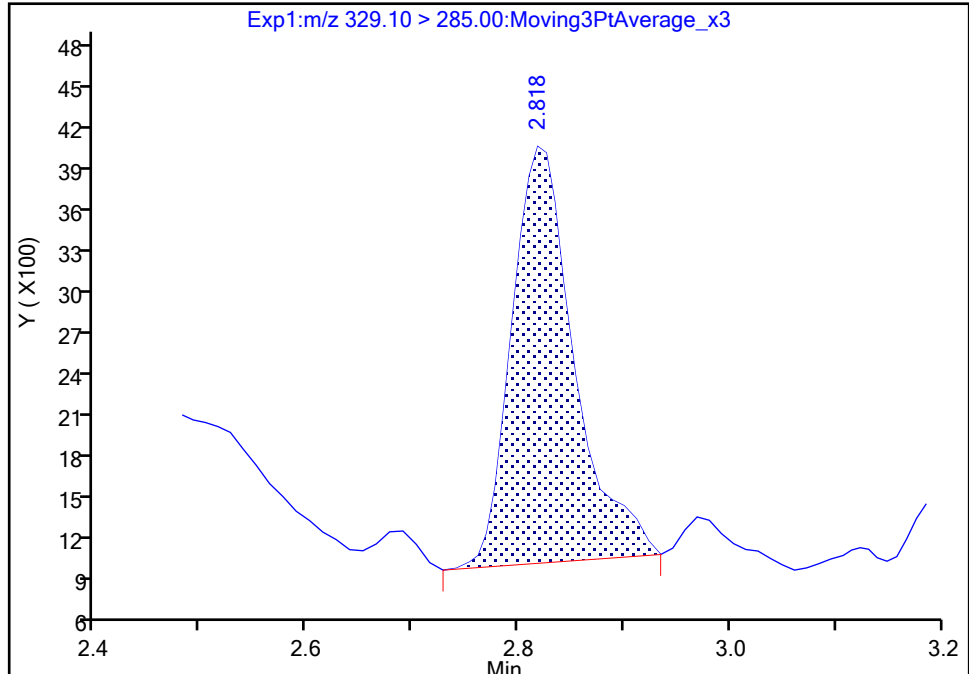
Detector: EXP1

67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

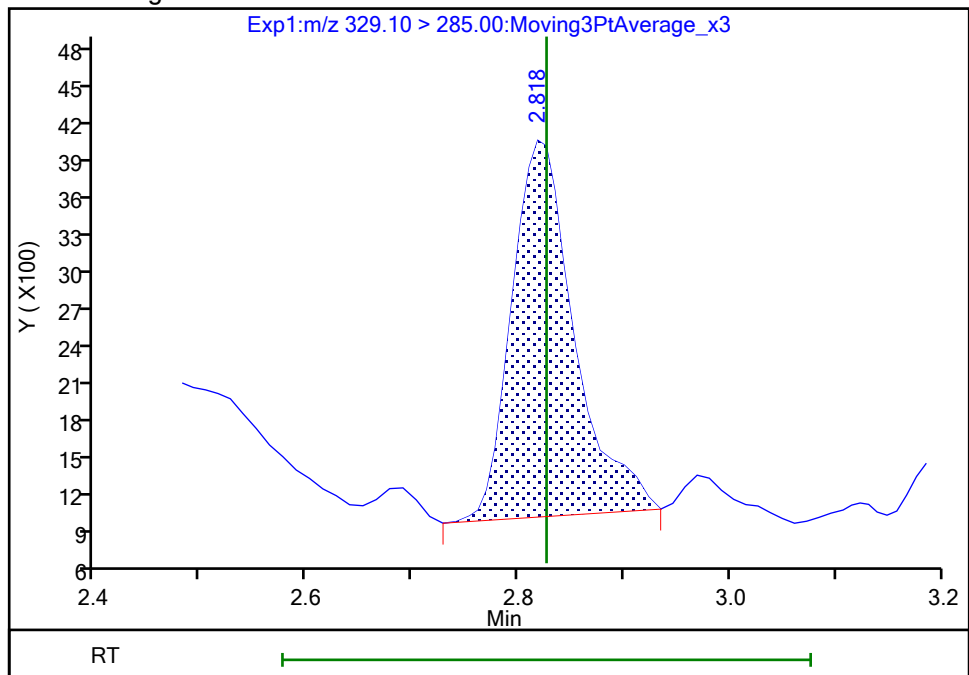
RT: 2.82
Area: 12283
Amount: 0.115225
Amount Units: ng/ml

Processing Integration Results



RT: 2.82
Area: 12283
Amount: 0.115119
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:54:31

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

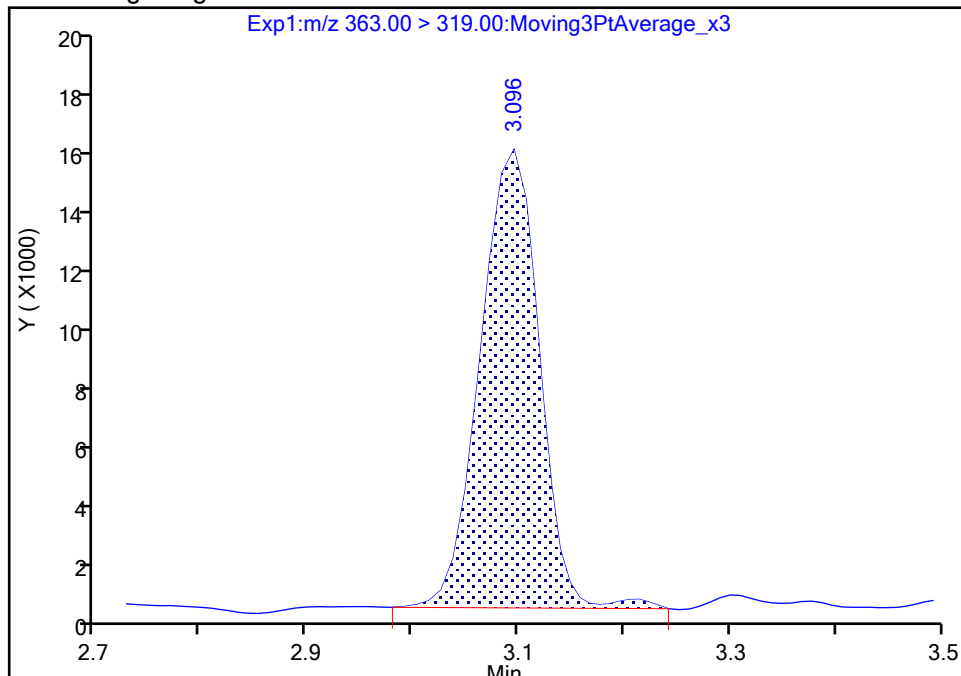
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL06.d
Injection Date: 22-Sep-2020 19:38:46 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

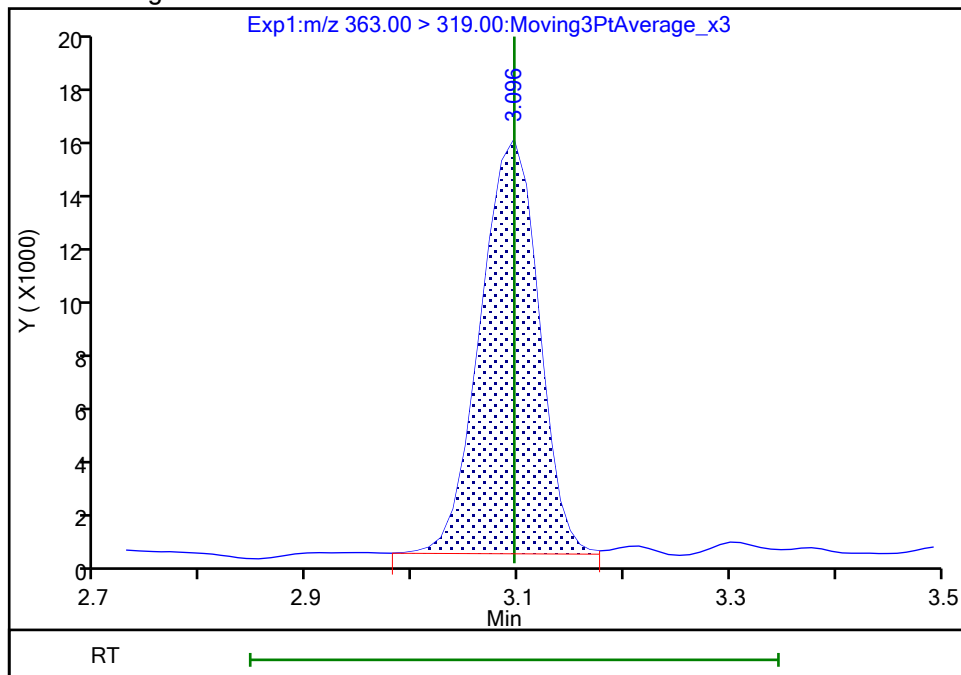
RT: 3.10
Area: 59358
Amount: 0.105269
Amount Units: ng/ml

Processing Integration Results



RT: 3.10
Area: 58588
Amount: 0.104140
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:38:42

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL06.d

Injection Date: 22-Sep-2020 19:38:46

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

3

Worklist Smp#: 6

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

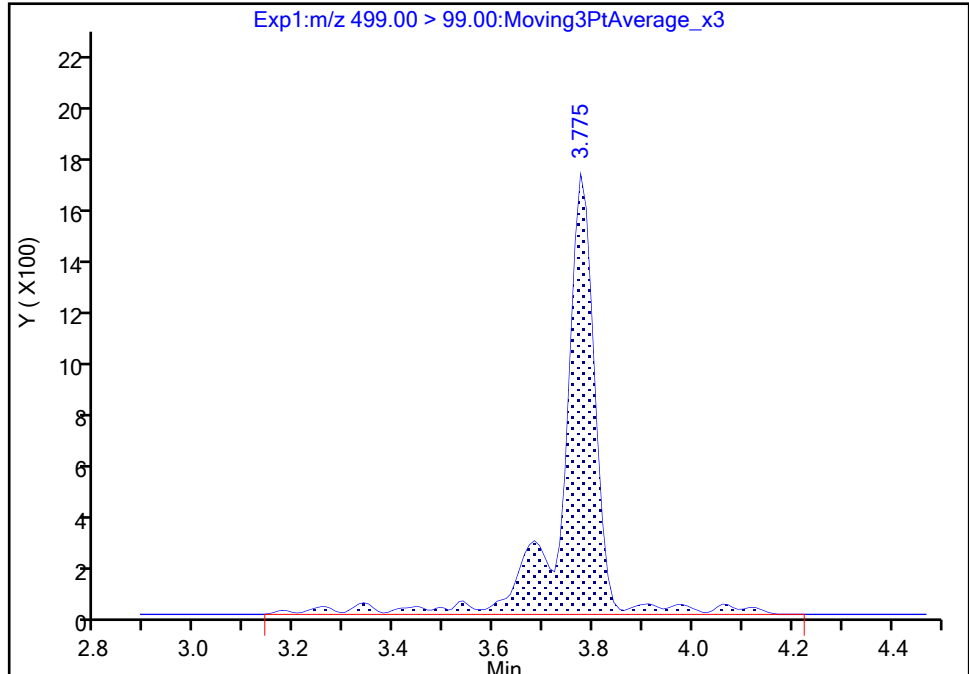
EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

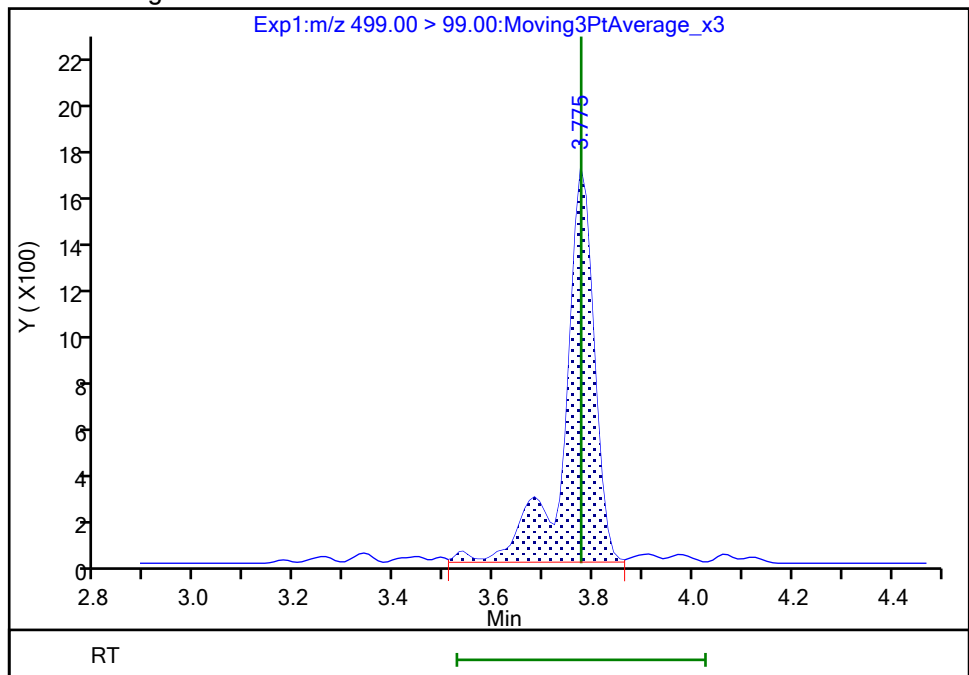
RT: 3.77
Area: 7865
Amount: 0.097640
Amount Units: ng/ml

Processing Integration Results



RT: 3.77
Area: 6947
Amount: 0.093139
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:39:34

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

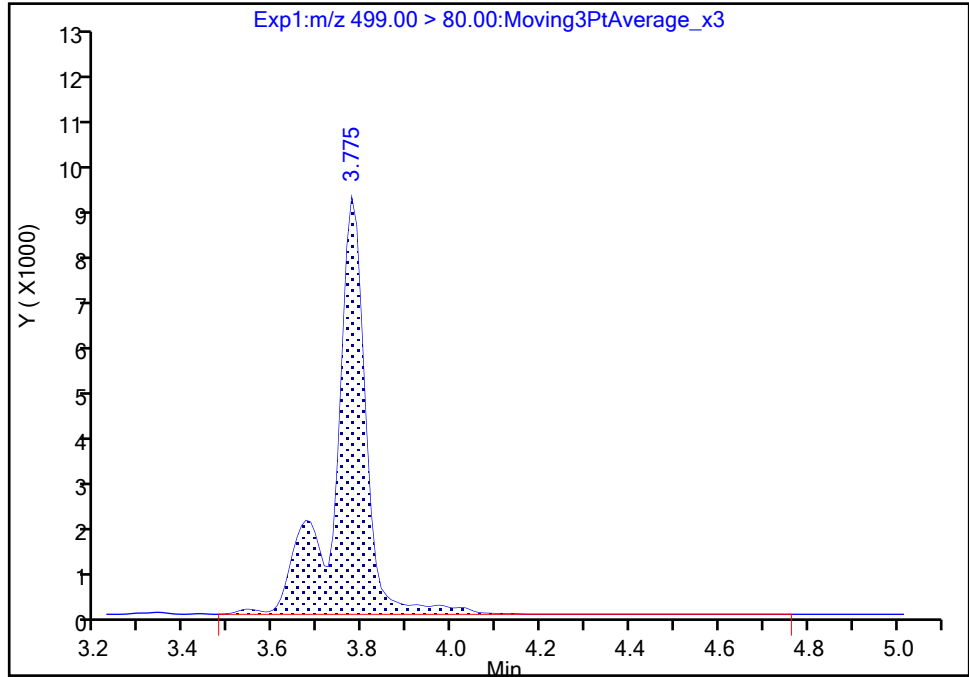
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL06.d
Injection Date: 22-Sep-2020 19:38:46 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

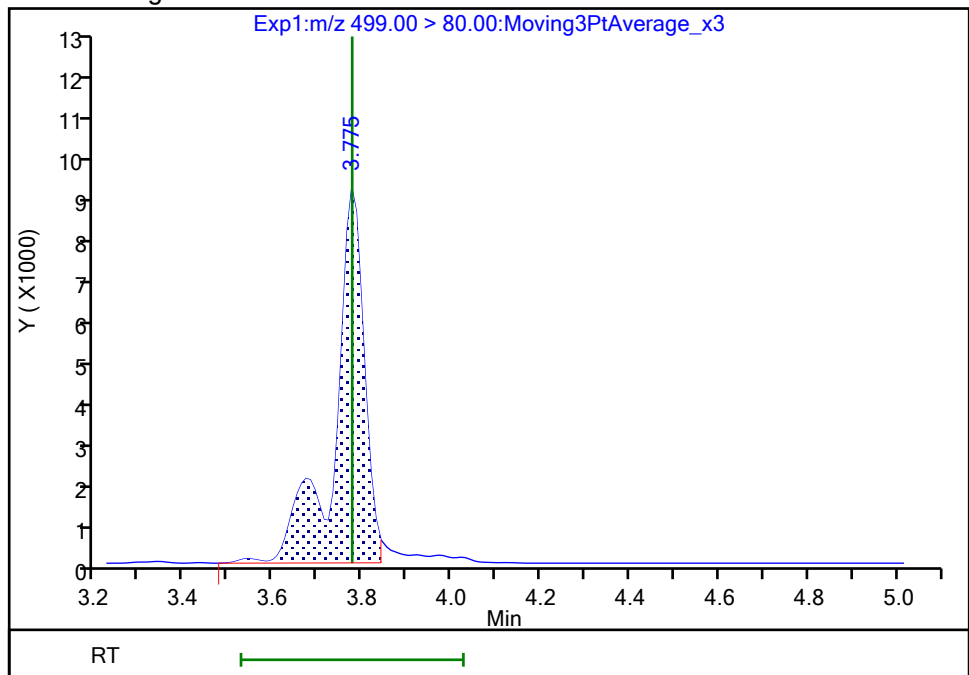
RT: 3.77
Area: 44731
Amount: 0.097640
Amount Units: ng/ml

Processing Integration Results



RT: 3.77
Area: 41988
Amount: 0.093139
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:39:39

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL06.d

Injection Date: 22-Sep-2020 19:38:46

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

3

Worklist Smp#: 6

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

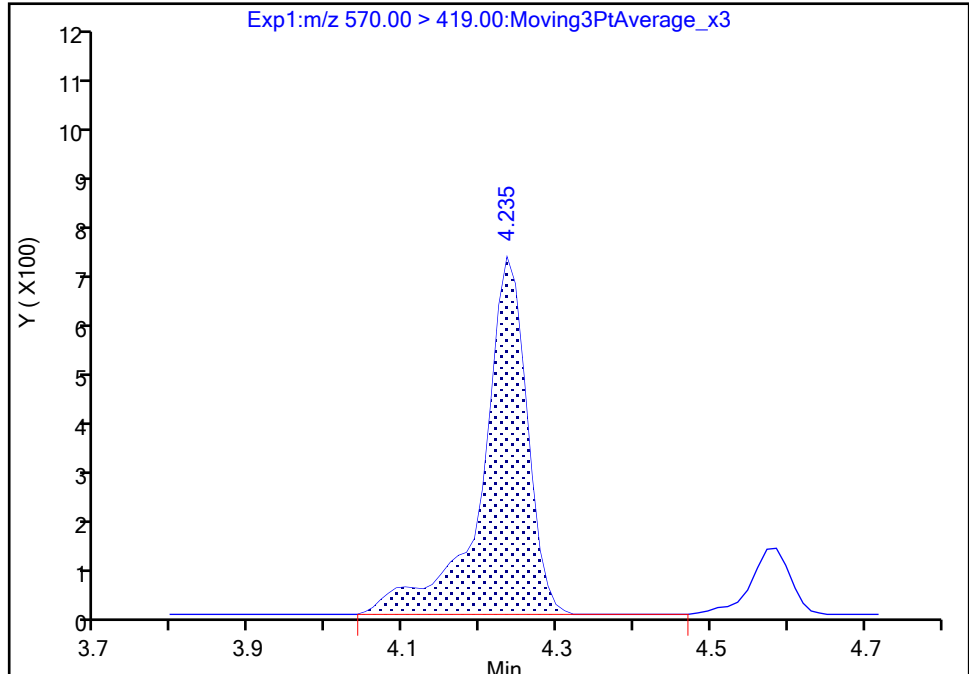
Detector: EXP1

28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

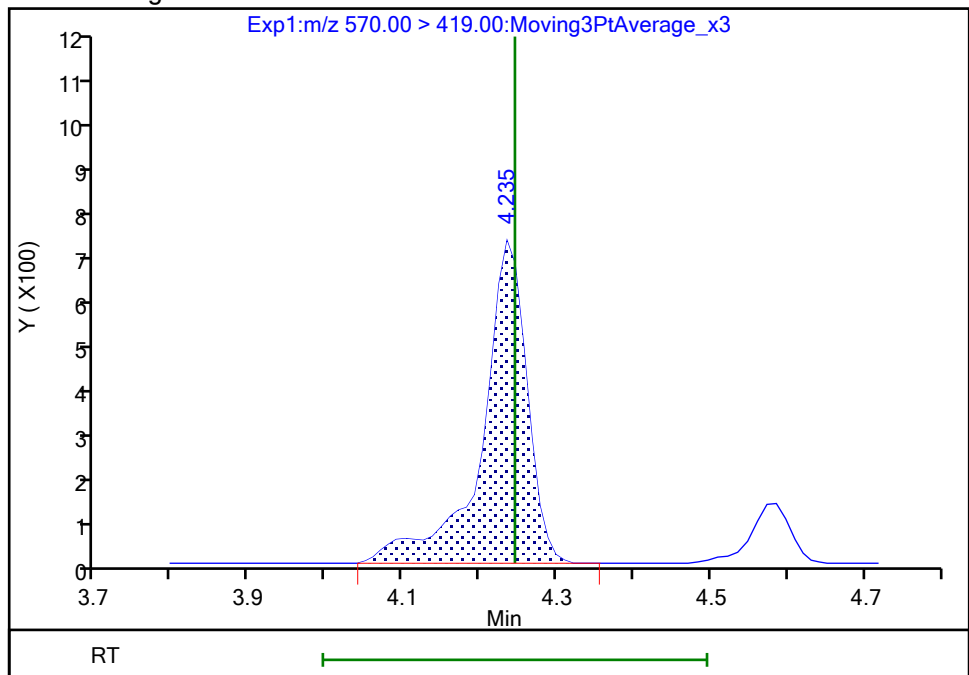
RT: 4.23
Area: 3014
Amount: 0.127203
Amount Units: ng/ml

Processing Integration Results



RT: 4.23
Area: 3014
Amount: 0.121435
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:39:50

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL06.d

Injection Date: 22-Sep-2020 19:38:46

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

3

Worklist Smp#: 6

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

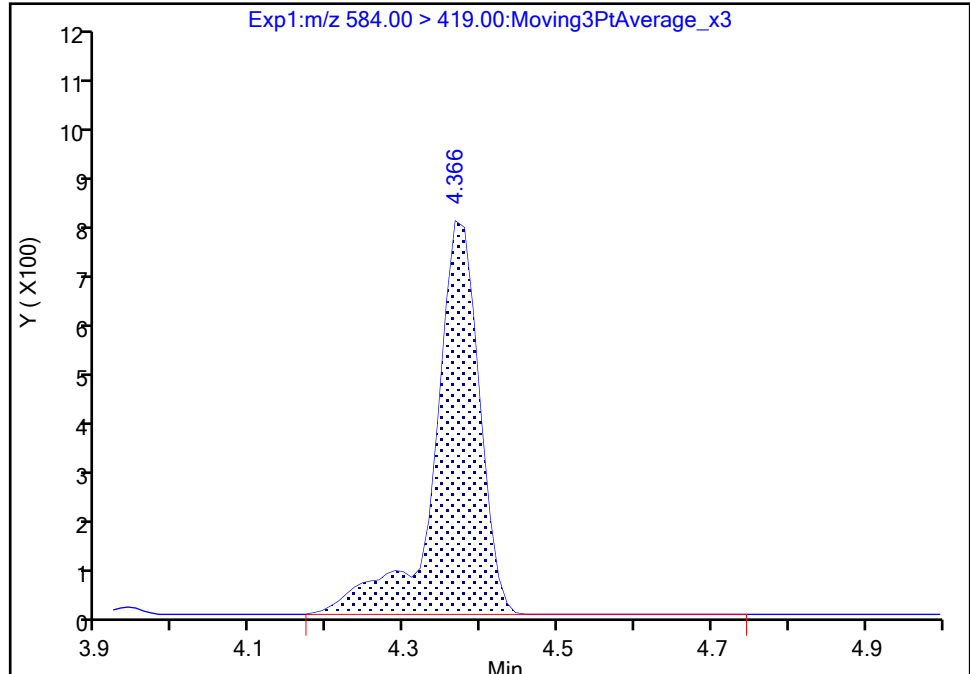
Detector: EXP1

33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

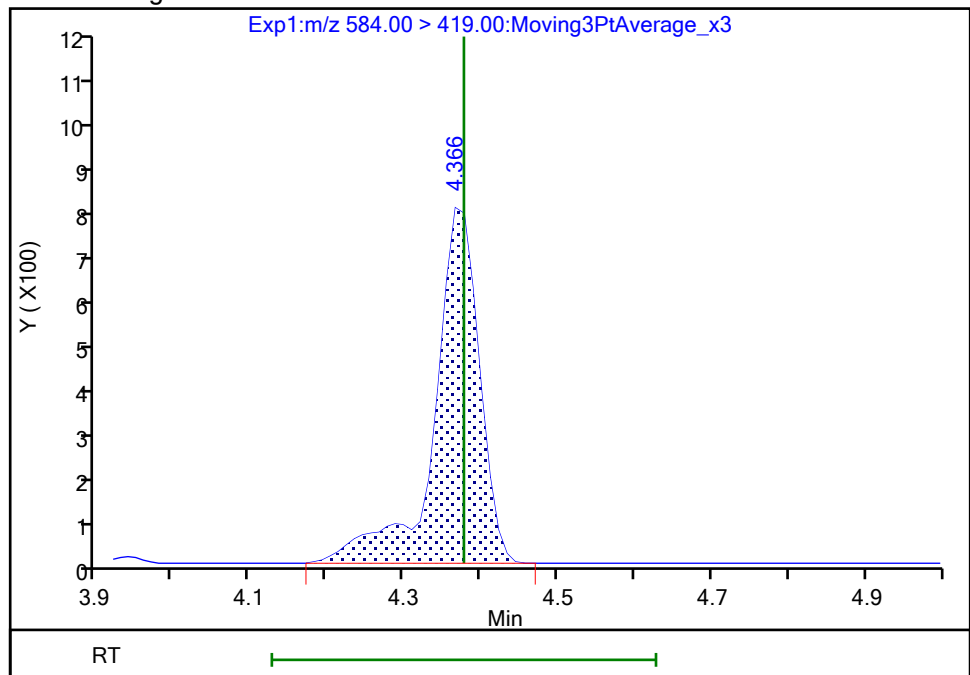
RT: 4.37
Area: 3309
Amount: 0.124640
Amount Units: ng/ml

Processing Integration Results



RT: 4.37
Area: 3309
Amount: 0.125855
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:39:57

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL06.d

Injection Date: 22-Sep-2020 19:38:46

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

3

Worklist Smp#: 6

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

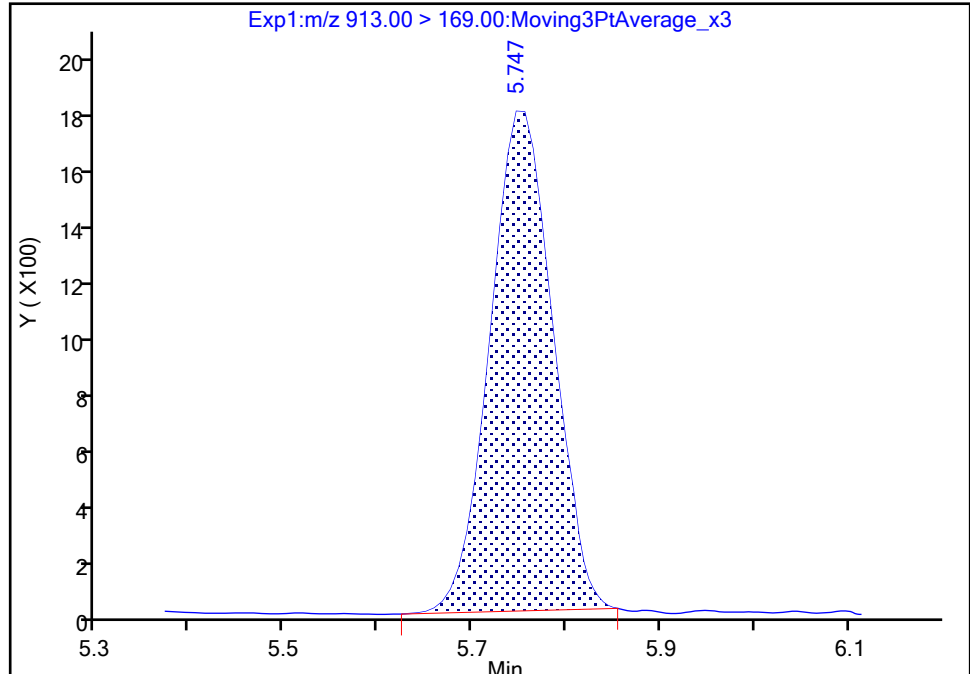
EXP1

46 Perfluorooctadecanoic acid, CAS: 16517-11-6

Signal: 2

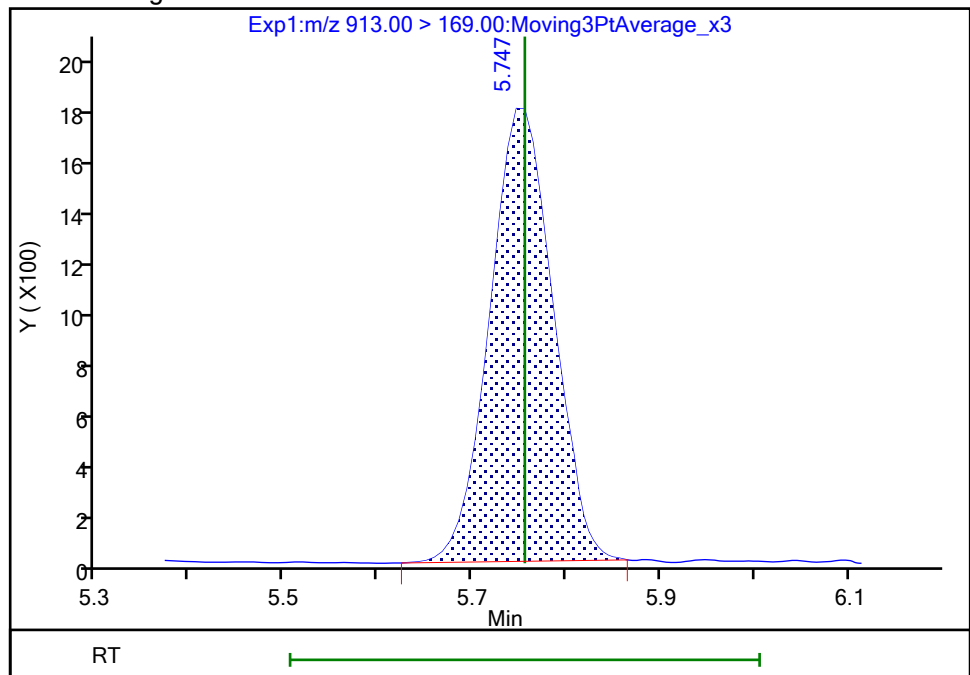
RT: 5.75
Area: 8149
Amount: 0.114284
Amount Units: ng/ml

Processing Integration Results



RT: 5.75
Area: 8210
Amount: 0.114284
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:40:15

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL07.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 22-Sep-2020 19:47:05 ALS Bottle#: 4 Worklist Smp#: 7
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: IC
 Misc. Info.: 200-0042904-007 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Sublist: chrom-PFC_LC812*sub3
 Method: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 23-Sep-2020 10:27:07 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1050

First Level Reviewer: chirgwinb

Date: 23-Sep-2020 09:34:09

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 1 13C4 PFBA										
217.00 > 172.00	2.000	1.990	0.010	0.577	1056932	1.19		95.5	7237	
2 Perfluorobutanoic acid										
212.90 > 169.00	2.000	2.000	0.0	1.000	365041	0.4619		92.4	57.2	
D 3 13C5 PFPeA										
267.90 > 223.00	2.339	2.339	0.0	0.675	781757	1.23		98.5	3590	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.339	2.339	0.0	1.000	308001	0.4663		93.3	18.7	
D 47 13C3 PFBS										
301.90 > 80.00	2.367	2.353	0.014	0.683	835513	1.08		93.0	243709	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.367	2.353	0.014	1.000	327034	0.4567	Target=1.99	103	949	
298.90 > 99.00	2.367	2.353	0.014	1.000	152327		2.15(1.00-2.99)	103	219	
61 1H,1H,2H,2H-perfluorohexanesulfo										
327.00 > 307.00	2.678	2.678	0.0	1.000	41137	0.4672		100	1073	
D 60 M2-4:2 FTS										
329.00 > 81.00	2.678	2.678	0.0	0.772	63606	1.10		93.8	164	
D 7 13C2 PFHxA										
315.00 > 270.00	2.716	2.716	0.0	0.783	788477	1.21		96.5	3041	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.716	2.716	0.0	1.000	290233	0.4569	Target=11.58	91.4	127	
313.00 > 119.00	2.716	2.716	0.0	1.000	24949		11.63(5.79-17.37)	91.4	76.4	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.716	2.716	0.0	0.877	287082	0.4963	Target=3.36	106	1172	
349.00 > 99.00	2.716	2.716	0.0	0.877	83933		3.42(1.68-5.05)	106	443	
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.826	2.818	0.008	0.815	66748	1.10		87.7	783	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
67 Perfluoro(2-propoxypropanoic) ac										M
329.10 > 285.00	2.826	2.826	0.0	1.000	55438	0.4879		97.6	13.4	M
D 11 18O2 PFHxS										
403.00 > 84.00	3.096	3.084	0.012	0.893	577663	1.04		88.1	2927	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.096	3.096	0.0	1.000	243221	0.4508	Target=4.59	99.1	719	
399.00 > 99.00	3.096	3.096	0.0	1.000	53241		4.57(2.29-6.88)	99.1	135	M
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.096	3.096	0.0	1.000	276267	0.4727	Target=3.29	94.5	151	
363.00 > 169.00	3.096	3.096	0.0	1.000	82743		3.34(1.65-4.94)	94.5	398	
D 9 13C4 PFHpA										
367.00 > 322.00	3.096	3.096	0.0	0.893	729002	1.23		98.1	3452	
77 DONA										
377.00 > 251.00	3.131	3.132	-0.001	0.830	603498	0.4587	Target=2.40	97.4	1529	
377.00 > 85.00	3.131	3.132	-0.001	0.830	250271		2.41(1.20-3.60)	97.4	662	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.450	3.450	0.0	0.914	225184	0.4552	Target=6.94	95.6	1508	
449.00 > 99.00	3.450	3.450	0.0	0.914	32488		6.93(3.47-10.41)	95.6	416	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.458	3.450	0.008	0.998	82305	1.11		93.5	685	
13 1H,1H,2H,2H-perfluorooctanesulfo										
427.00 > 407.00	3.450	3.450	0.0	0.997	25048	0.4528		95.5	459	
D 14 13C4 PFOA										
417.00 > 372.00	3.467	3.458	0.009	1.000	731192	1.20		96.1	3050	
* 62 13C2 PFOA										
415.00 > 370.00	3.467	3.458	0.009		772500	1.25			2064	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.467	3.458	0.009	1.000	283046	0.4687	Target=2.26	93.7	134	
413.00 > 169.00	3.467	3.458	0.009	1.000	131310		2.16(1.13-3.38)	93.7	378	
D 18 13C4 PFOS										
503.00 > 80.00	3.775	3.776	-0.001	1.089	510243	1.12		94.1	2064	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.785	3.776	0.009	1.003	200516	0.4321	Target=6.66	93.1	468	M
499.00 > 99.00	3.775	3.776	-0.001	1.000	29384		6.82(3.33-9.99)	93.1	239	M
D 19 13C5 PFNA										
468.00 > 423.00	3.796	3.797	-0.001	1.095	630136	1.23		98.3	4361	
20 Perfluorononanoic acid										
463.00 > 419.00	3.796	3.797	-0.001	1.000	230931	0.4498	Target=6.07	90.0	89.8	
463.00 > 169.00	3.796	3.797	-0.001	1.000	41583		5.55(3.03-9.10)	90.0	632	
69 9-Chlorohexadecafluoro-3-oxanona										
531.00 > 351.00	3.940	3.941	-0.001	1.044	189704	0.4646		99.7	1877	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.071	4.072	-0.001	1.078	166030	0.4528	Target=3.49	94.3	1579	
549.00 > 99.00	4.071	4.072	-0.001	1.078	50294		3.30(1.75-5.24)	94.3	324	
24 Perfluorodecanoic acid										
513.00 > 469.00	4.103	4.092	0.011	1.000	209970	0.4618	Target=6.79	92.4	319	
513.00 > 169.00	4.103	4.092	0.011	1.000	30367		6.91(3.39-10.18)	92.4	348	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 23 13C2 PFDA										
515.00 > 470.00	4.103	4.092	0.011	1.183	574488	1.17		93.5	5254	
25 1H,1H,2H,2H-perfluorodecanesulfo										
527.00 > 507.00	4.103	4.103	0.0	1.000	16715	0.4957		103	519	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.103	4.103	0.0	1.183	102015	1.17		97.6	1108	
D 21 13C8 FOSA										
506.00 > 78.00	4.150	4.151	-0.001	1.197	926529	1.17		93.6	3217	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.161	4.151	0.010	1.003	330389	0.4768		95.4	728	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.235	4.235	0.0	1.222	35476	1.27		101	269	
28 N-methylperfluorooctanesulfonami										
570.00 > 419.00	4.246	4.245	0.001	1.002	11937	0.4457		89.1	122	
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.332	4.332	0.0	1.148	144034	0.4695	Target=3.11	97.4	918	
599.00 > 99.00	4.332	4.332	0.0	1.148	45085		3.19(1.55-4.66)	97.4	401	
D 30 13C2 PFUnA										
565.00 > 520.00	4.366	4.355	0.011	1.259	443846	1.20		95.7	3640	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.366	4.355	0.011	1.000	169269	0.4833	Target=6.33	96.7	224	
563.00 > 169.00	4.366	4.355	0.011	1.000	25641		6.60(3.17-9.50)	96.7	553	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.366	4.366	0.0	1.259	37925	1.26		101	804	
33 N-ethylperfluorooctanesulfonamid										
584.00 > 419.00	4.378	4.378	0.0	1.003	11209	0.4035		80.7	216	M
66 11-Chloroeicosafuoro-3-oxaundec										
631.00 > 451.00	4.457	4.444	0.013	1.181	162373	0.4610		97.9	3138	
D 36 13C2 PFDaA										
615.00 > 570.00	4.598	4.585	0.013	1.326	466792	1.19		95.2	3747	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.598	4.585	0.013	1.000	180494	0.4956	Target=5.23	99.1	170	
613.00 > 169.00	4.586	4.585	0.001	0.997	34474		5.24(2.62-7.85)	99.1	862	
74 1H,1H,2H,2H-perfluorododecanesul										
627.00 > 607.00	4.610	4.610	0.0	1.124	9351	0.4991		104	321	
75 Perfluorododecanesulfonic acid (										
699.00 > 80.00	4.763	4.763	0.0	1.262	42682	0.4335	Target=0.47	89.6	121	
699.00 > 99.00	4.763	4.763	0.0	1.262	96210		0.44(0.23-0.70)	89.6	955	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.803	4.802	0.001	1.045	161376	0.5218	Target=3.57	104	103	
663.00 > 169.00	4.803	4.802	0.001	1.045	40764		3.96(1.78-5.35)	104	1103	
D 43 13C2 PFTeDA										
715.00 > 670.00	4.998	4.998	0.0	1.442	323465	1.16		92.6	4437	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.998	4.998	0.0	1.000	27765	0.4684	Target=1.07	93.7	606	
713.00 > 219.00	4.998	4.998	0.0	1.000	27946		0.99(0.54-1.61)	93.7	1040	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags

D 44 13C2 PFHxDA

815.00 > 770.00 5.372 5.361 0.011 1.550 368871 1.16 93.2 3676

45 Perfluorohexadecanoic acid

813.00 > 769.00 5.372 5.372 0.0 1.000 136875 0.5104 Target=3.00 102 103

813.00 > 169.00 5.372 5.372 0.0 1.000 46280 2.96(1.50-4.49) 102 1183

46 Perfluorooctadecanoic acid

913.00 > 869.00 5.756 5.756 0.0 1.071 112069 0.5082 Target=2.88 102 120

913.00 > 169.00 5.756 5.756 0.0 1.071 39425 2.84(1.44-4.32) 102 837

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

PFAS32NCIC3_00007

Amount Added: 100.00

Units: uL

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL07.d

Injection Date: 22-Sep-2020 19:47:05

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#: 4

Worklist Smp#: 7

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

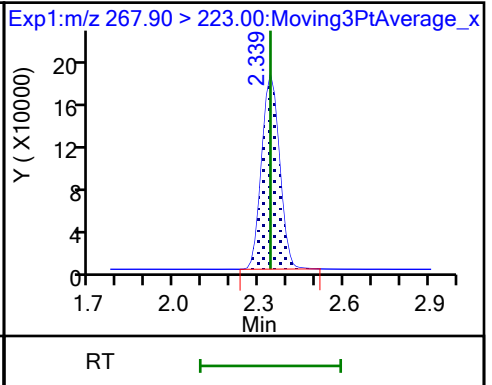
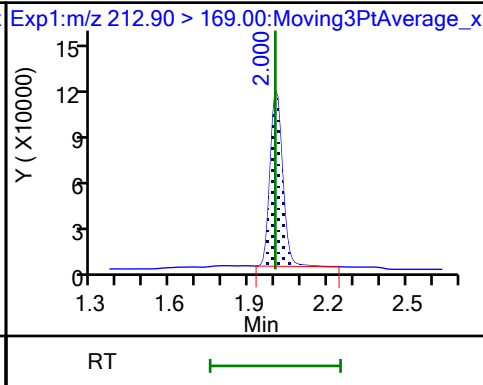
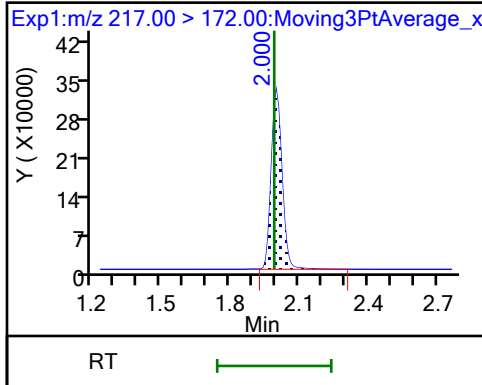
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid

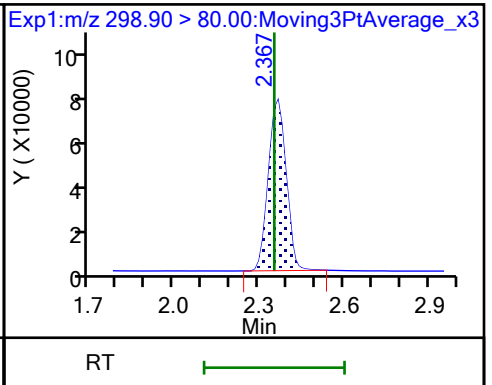
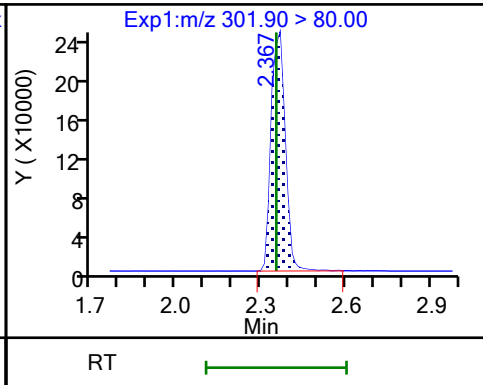
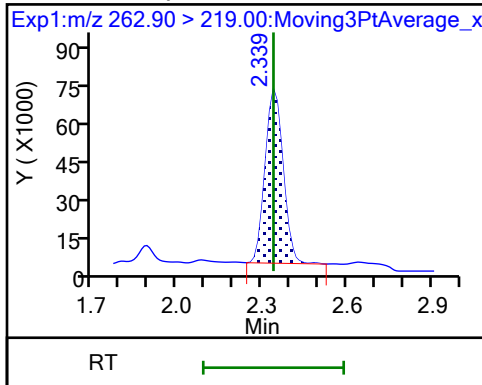
D 3 13C5 PFPeA



4 Perfluoropentanoic acid

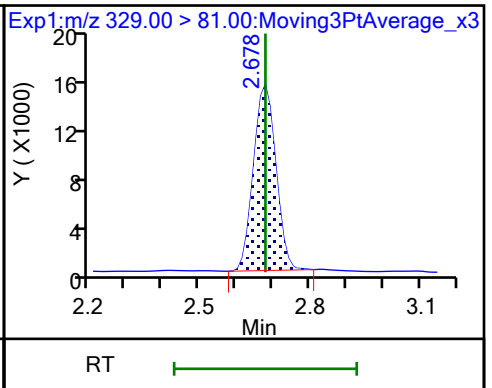
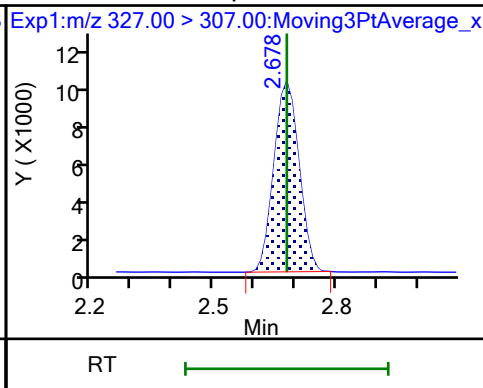
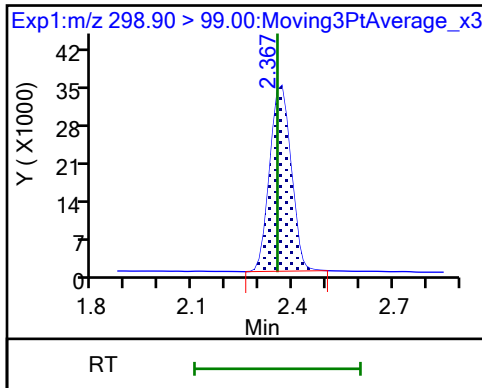
D 47 13C3 PFBS

5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

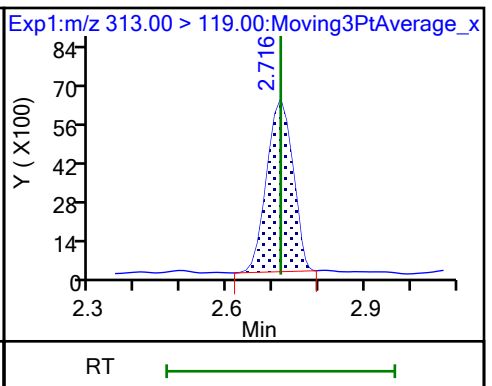
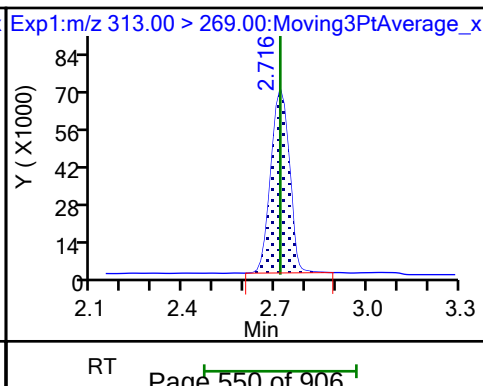
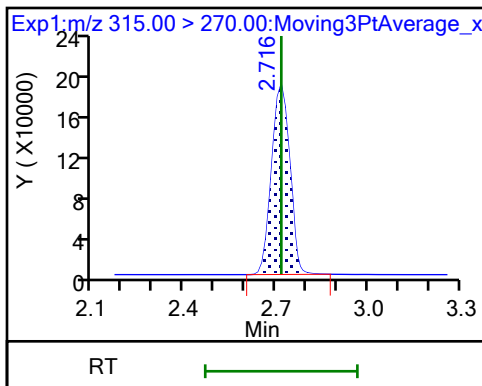
61 1H,1H,2H,2H-perfluorohexanesulfo D 60 M2-4:2 FTS

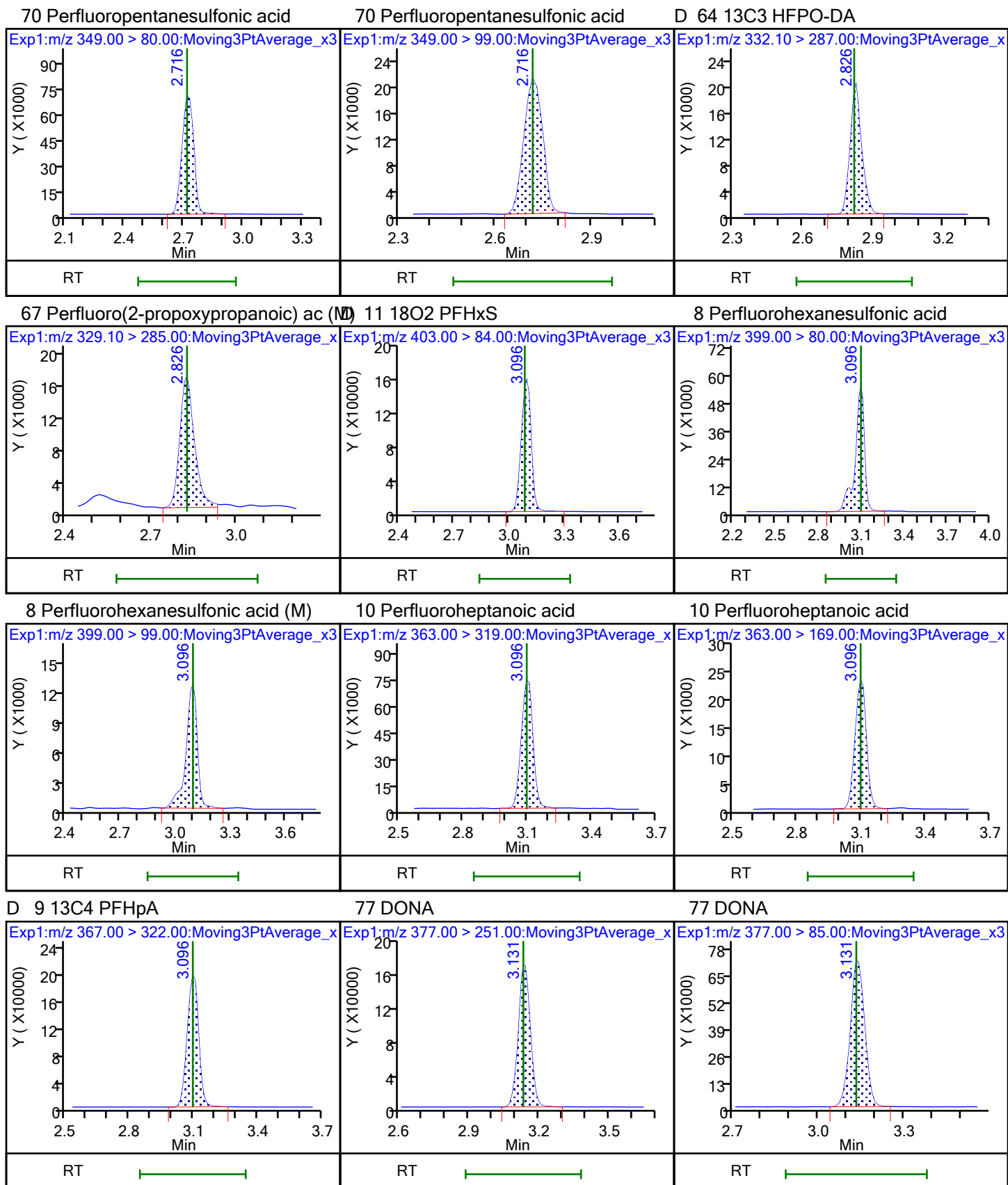


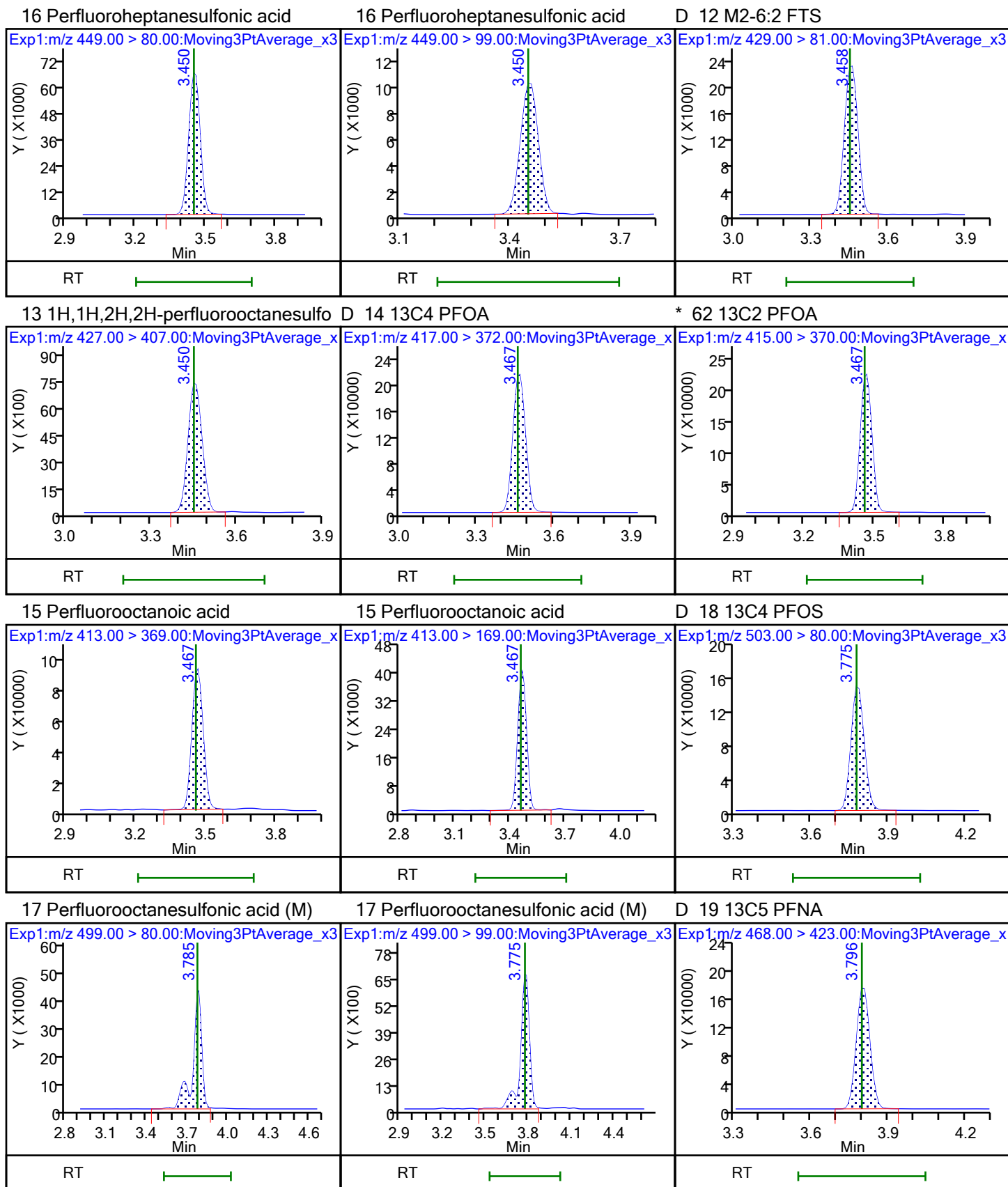
D 7 13C2 PFHxA

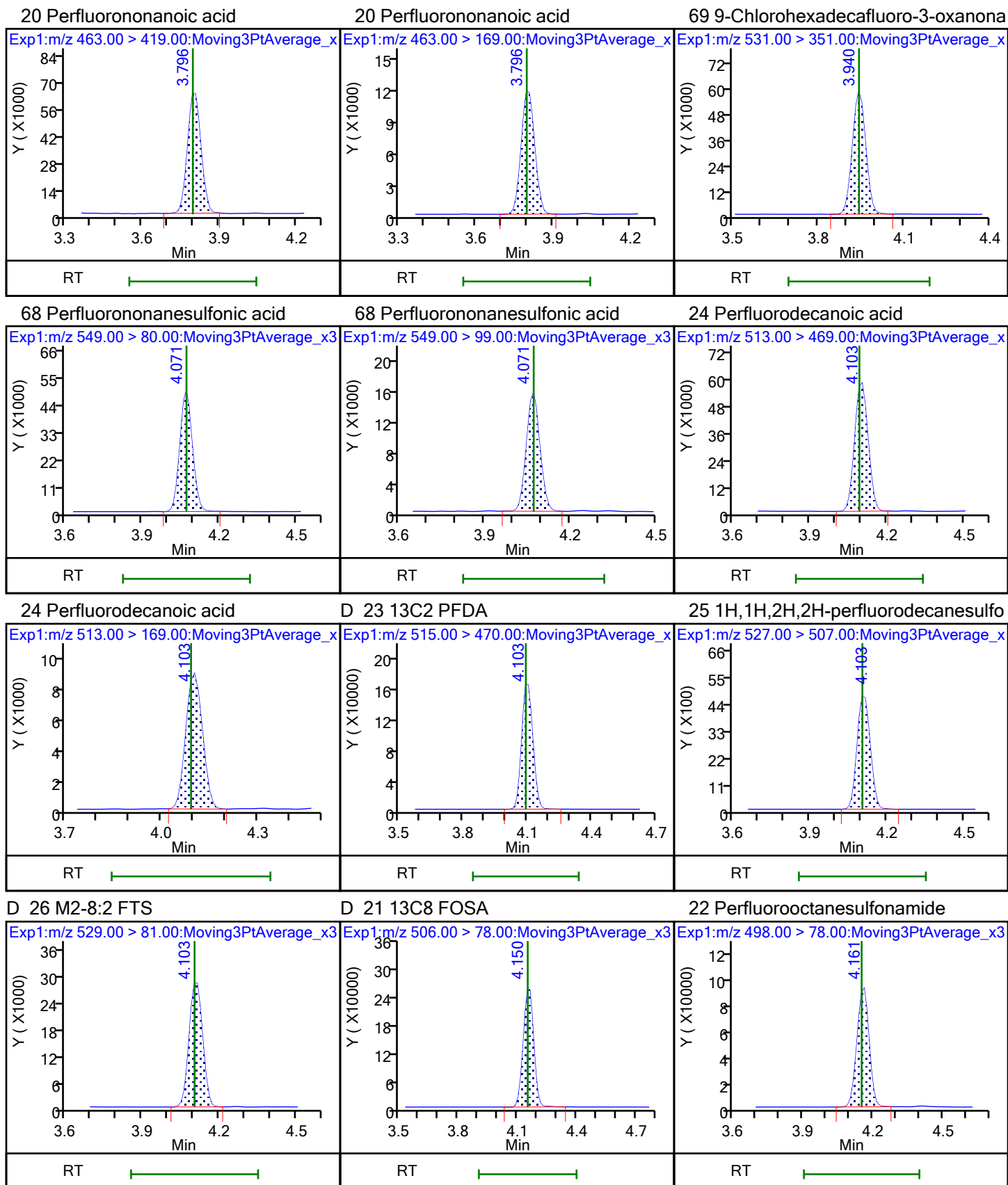
6 Perfluorohexanoic acid

6 Perfluorohexanoic acid





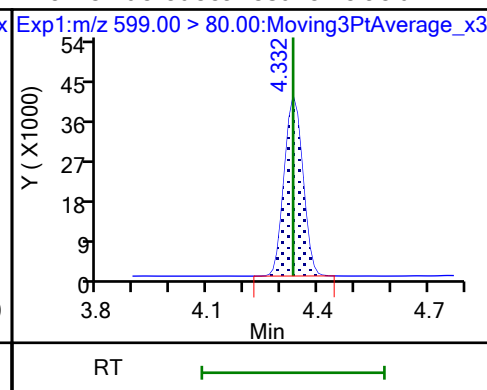
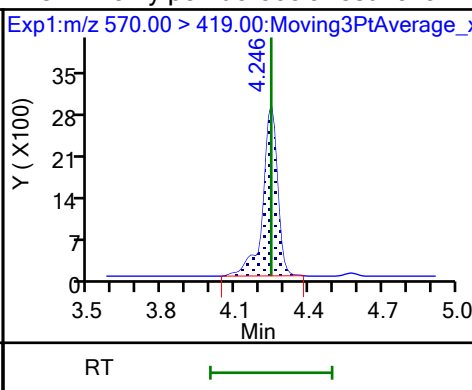
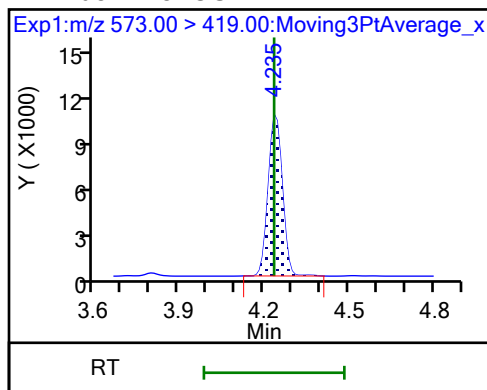




D 27 d3-NMeFOSAA

28 N-methylperfluorooctanesulfonami

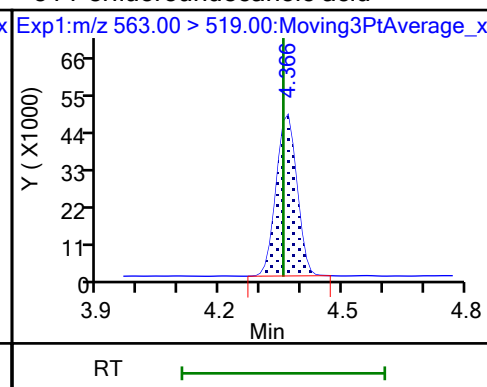
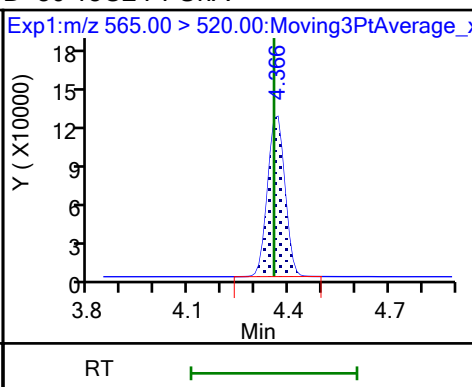
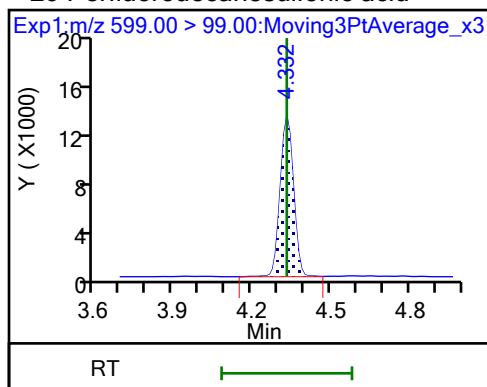
29 Perfluorodecanesulfonic acid



29 Perfluorodecanesulfonic acid

D 30 13C2 PFUnA

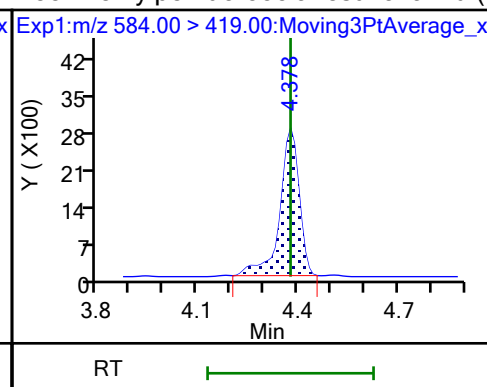
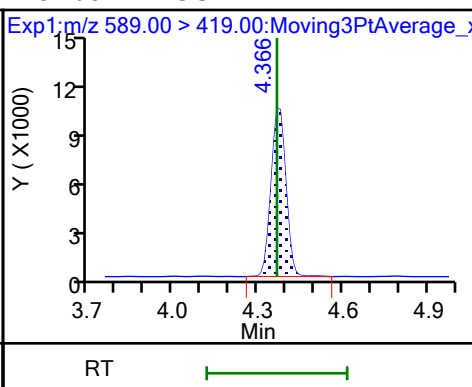
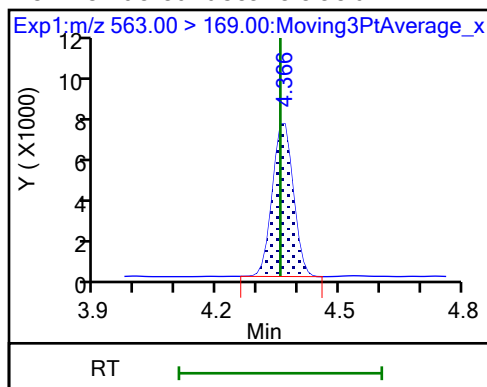
31 Perfluoroundecanoic acid



31 Perfluoroundecanoic acid

D 32 d5-NEtFOSAA

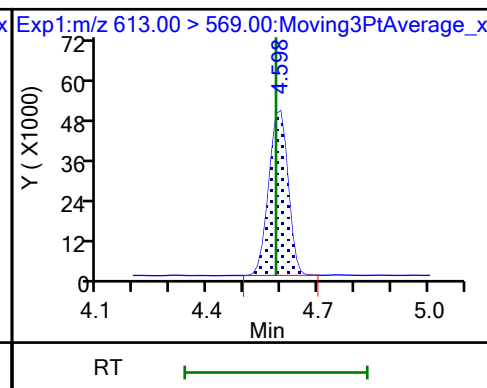
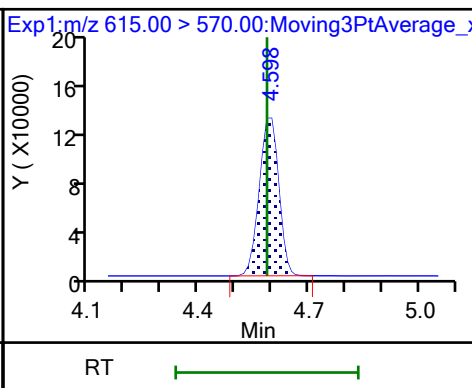
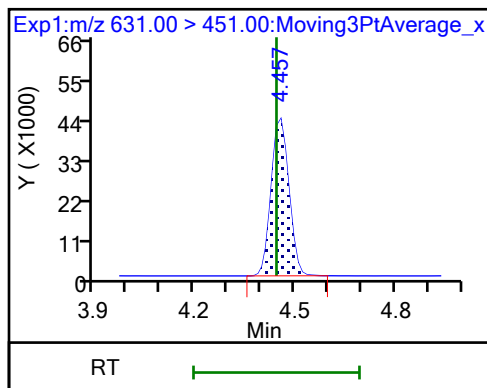
33 N-ethylperfluorooctanesulfonamid (M)

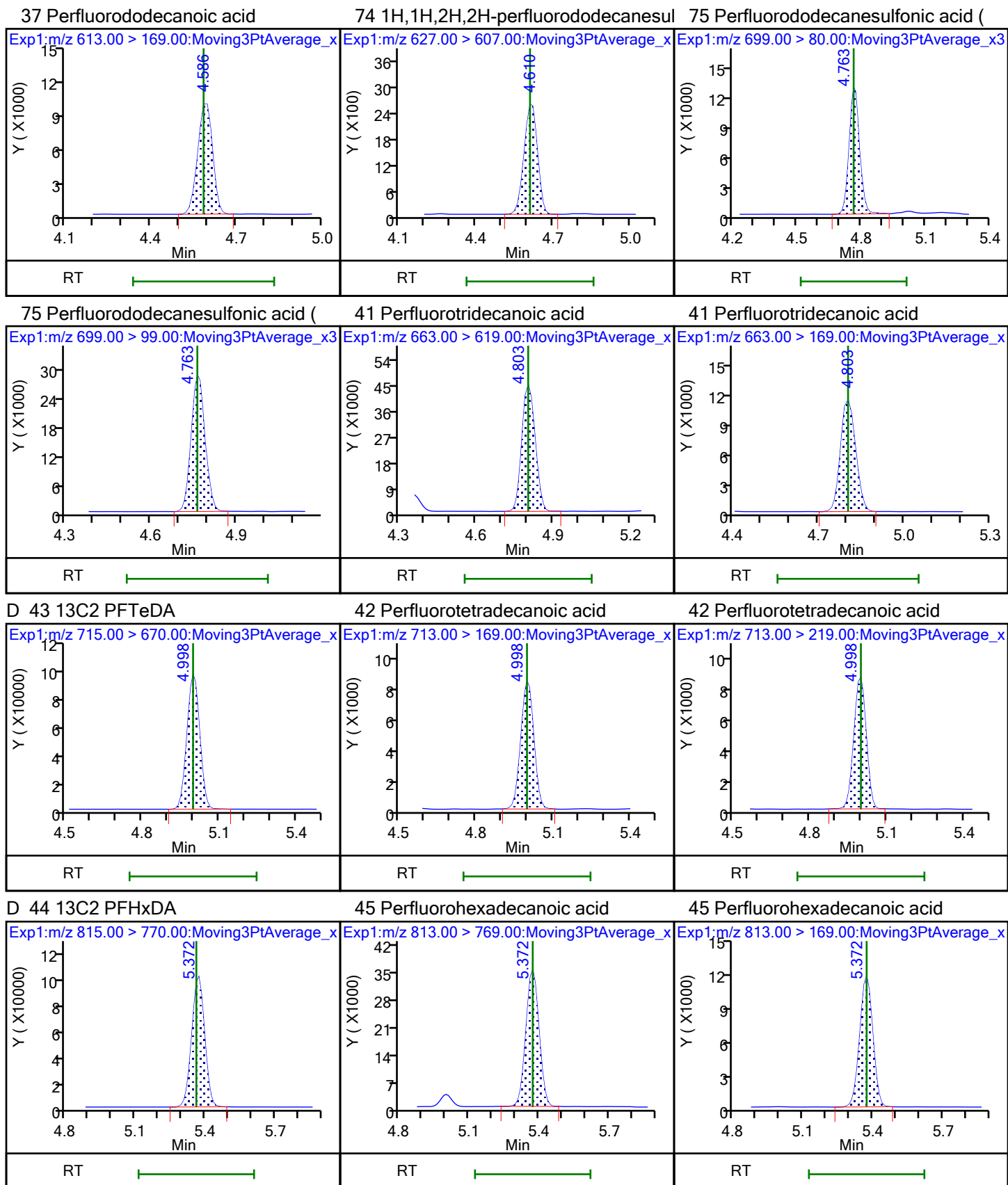


66 11-Chloroeicosafluoro-3-oxaundec

D 36 13C2 PFDaA

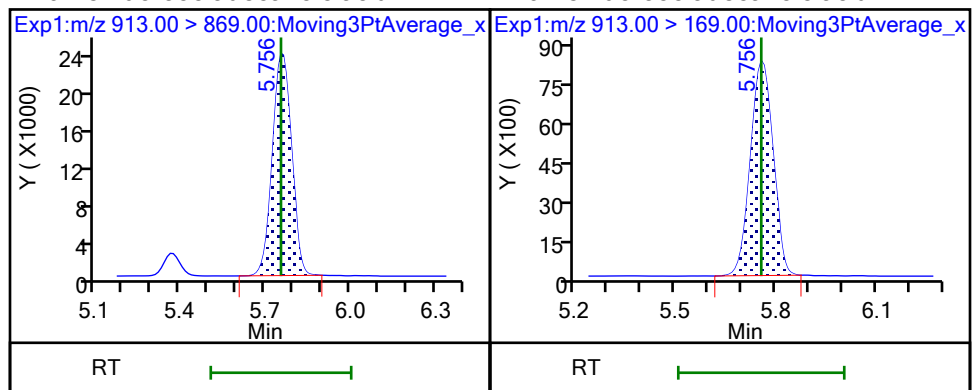
37 Perfluorododecanoic acid





46 Perfluorooctadecanoic acid

46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL07.d

Injection Date: 22-Sep-2020 19:47:05

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

4

Worklist Smp#: 7

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

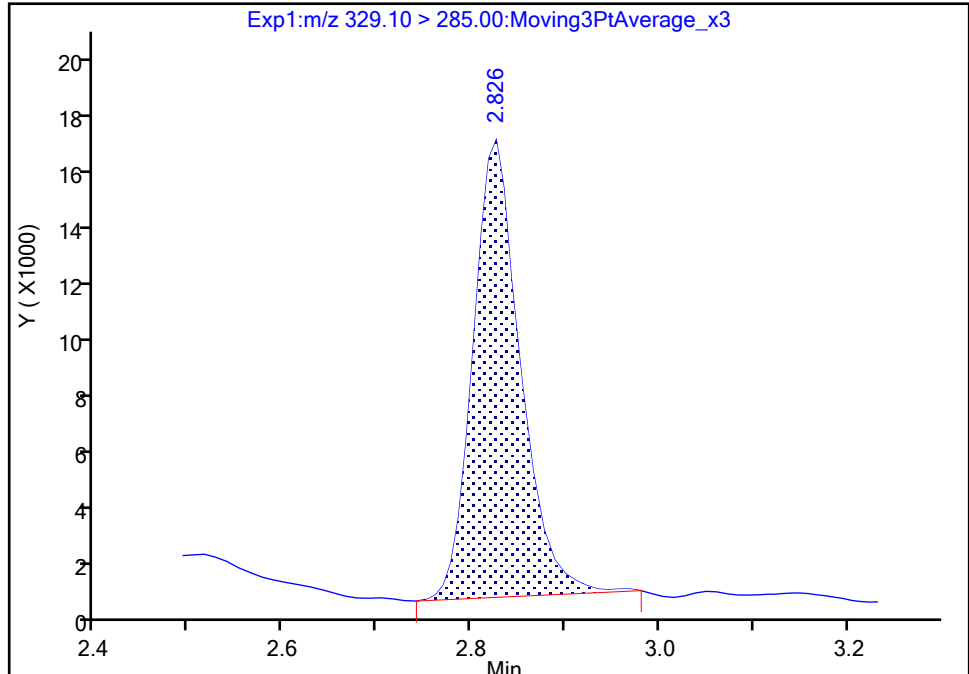
Detector: EXP1

67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

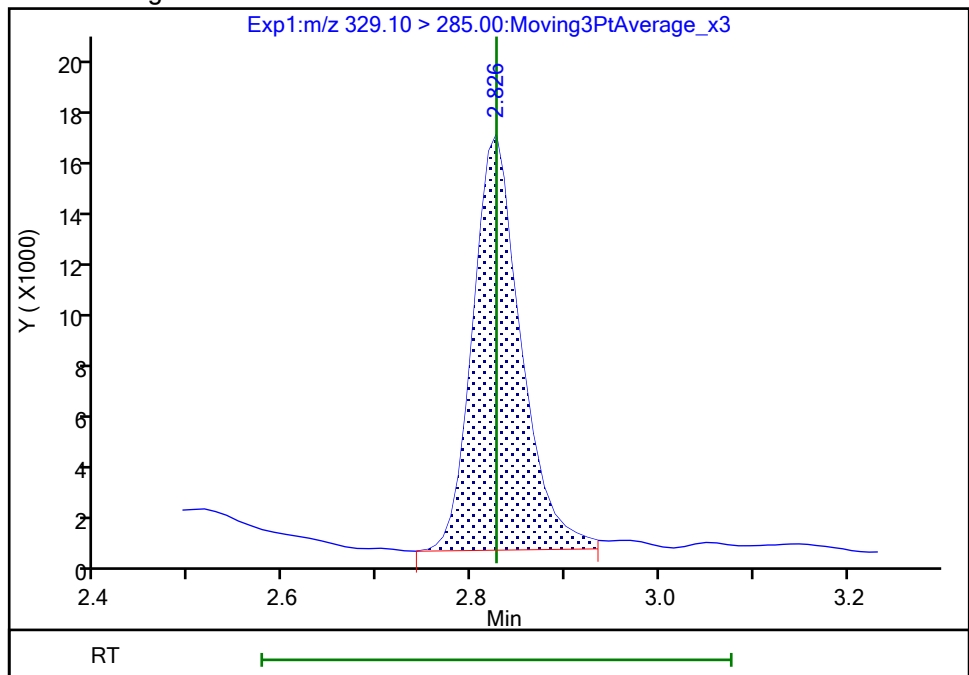
RT: 2.83
Area: 54492
Amount: 0.488455
Amount Units: ng/ml

Processing Integration Results



RT: 2.83
Area: 55438
Amount: 0.487917
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:54:13

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

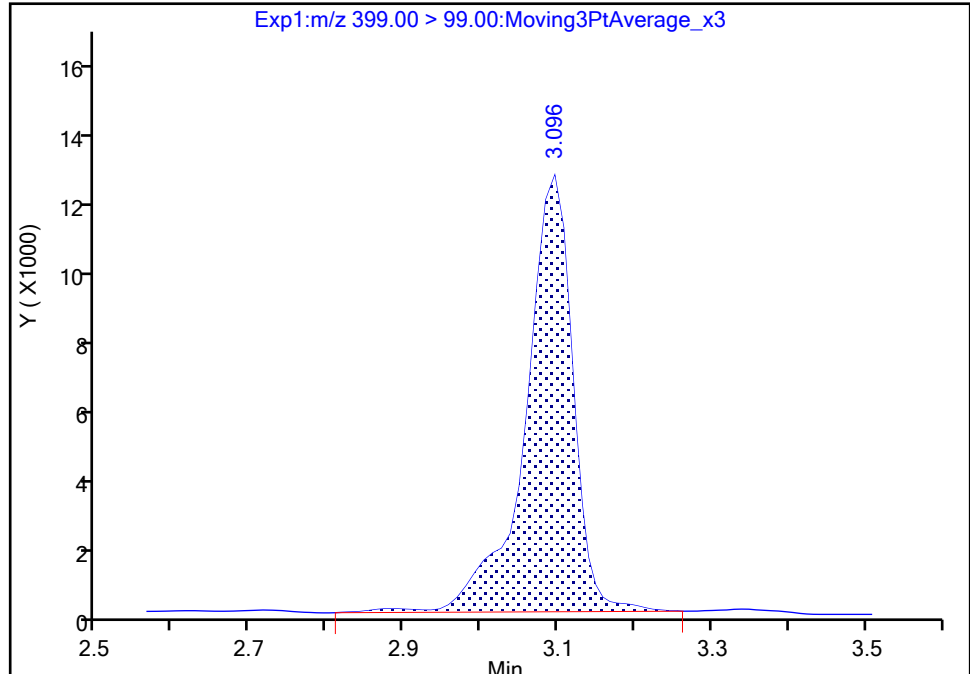
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL07.d
Injection Date: 22-Sep-2020 19:47:05 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

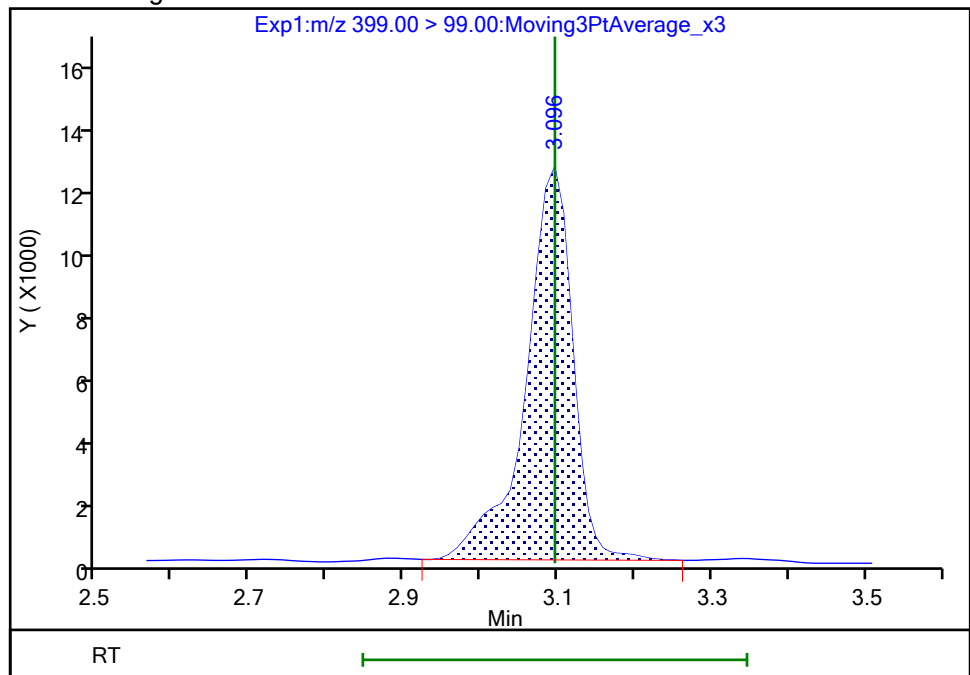
RT: 3.10
Area: 54308
Amount: 0.450815
Amount Units: ng/ml

Processing Integration Results



RT: 3.10
Area: 53241
Amount: 0.450815
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:40:43
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 558 of 906

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL07.d

Injection Date: 22-Sep-2020 19:47:05

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

4

Worklist Smp#: 7

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

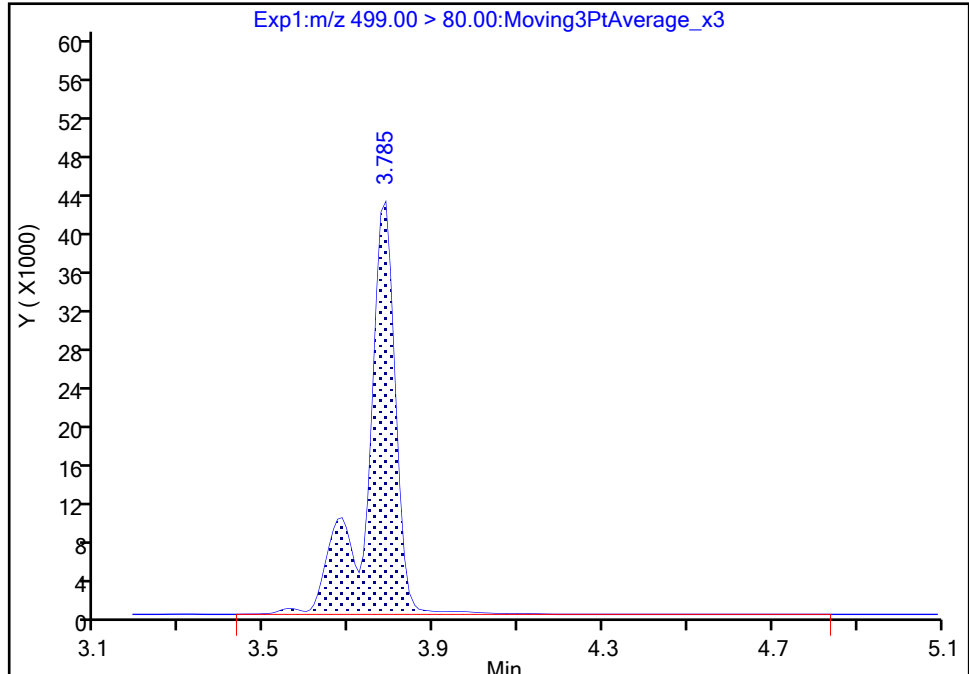
Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

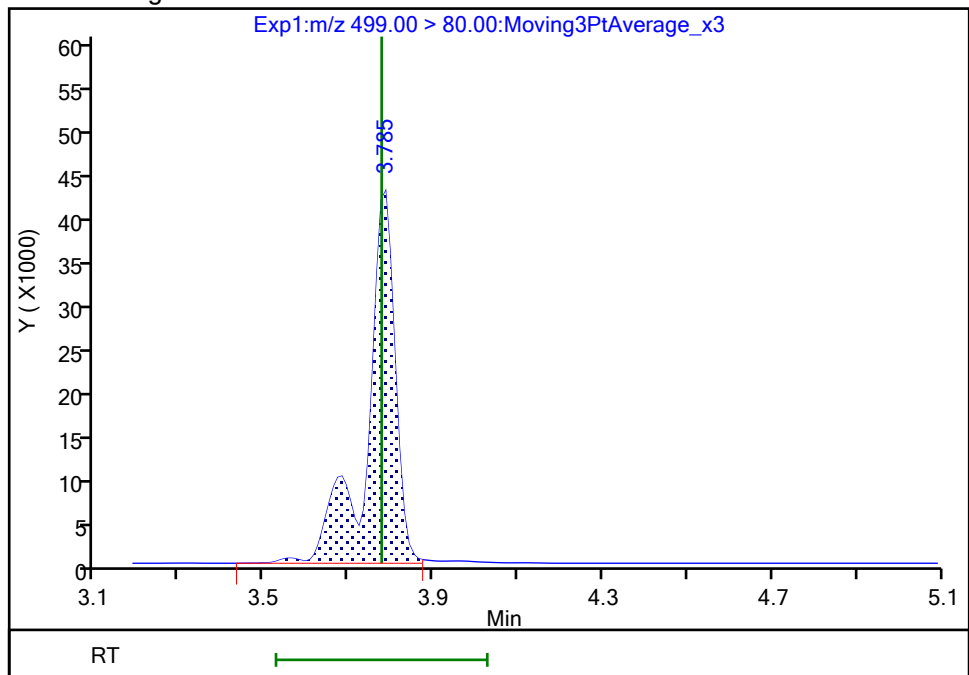
RT: 3.79
Area: 203225
Amount: 0.435684
Amount Units: ng/ml

Processing Integration Results



RT: 3.79
Area: 200516
Amount: 0.432149
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:41:06

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL07.d

Injection Date: 22-Sep-2020 19:47:05

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

4

Worklist Smp#: 7

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

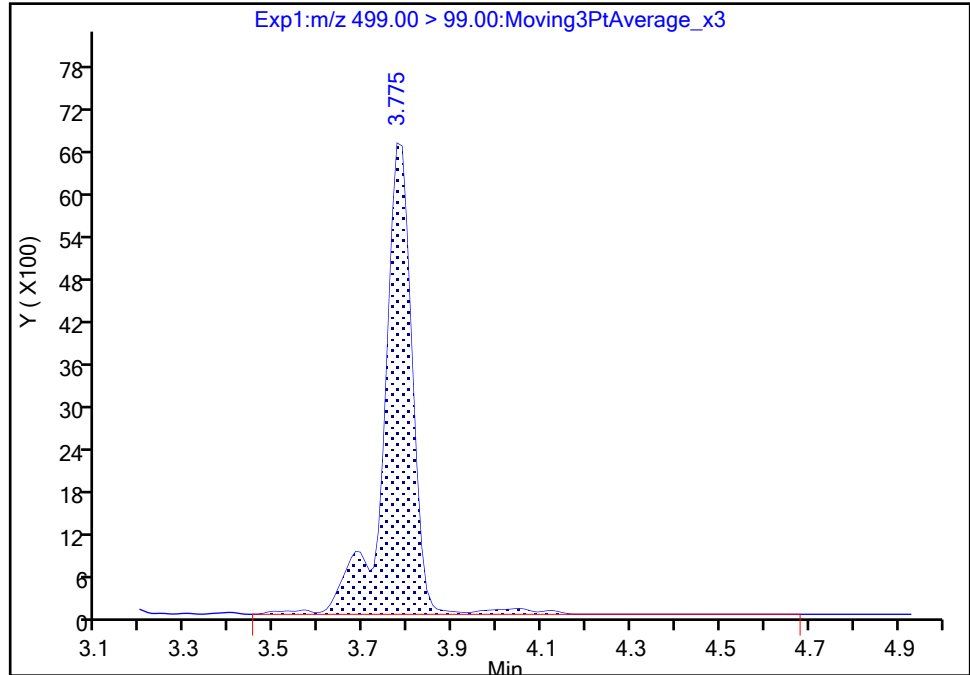
EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

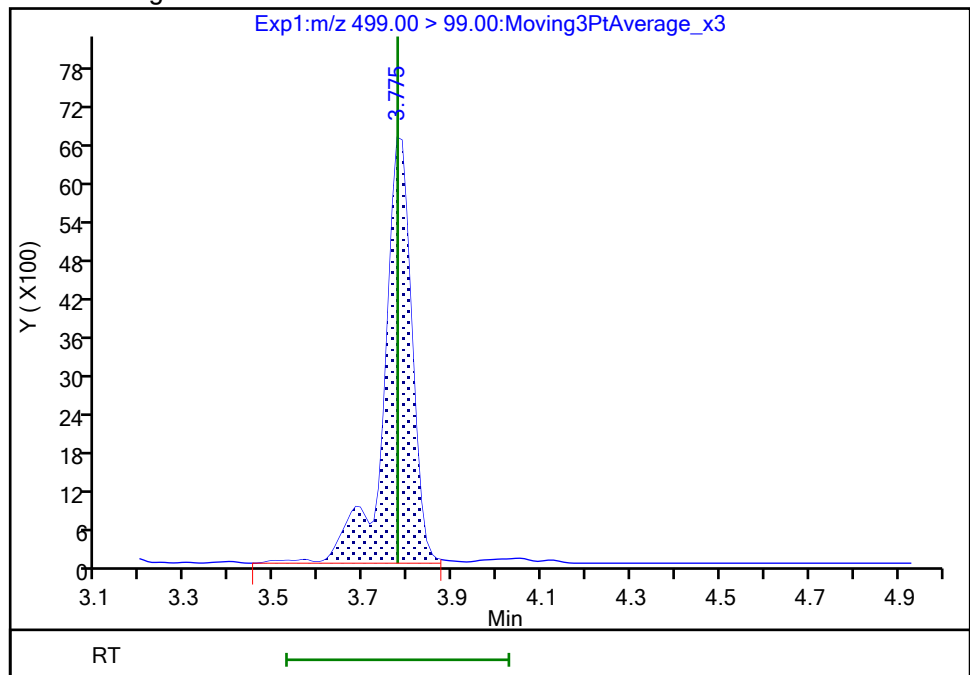
RT: 3.77
Area: 30165
Amount: 0.435684
Amount Units: ng/ml

Processing Integration Results



RT: 3.77
Area: 29384
Amount: 0.432149
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:41:08

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

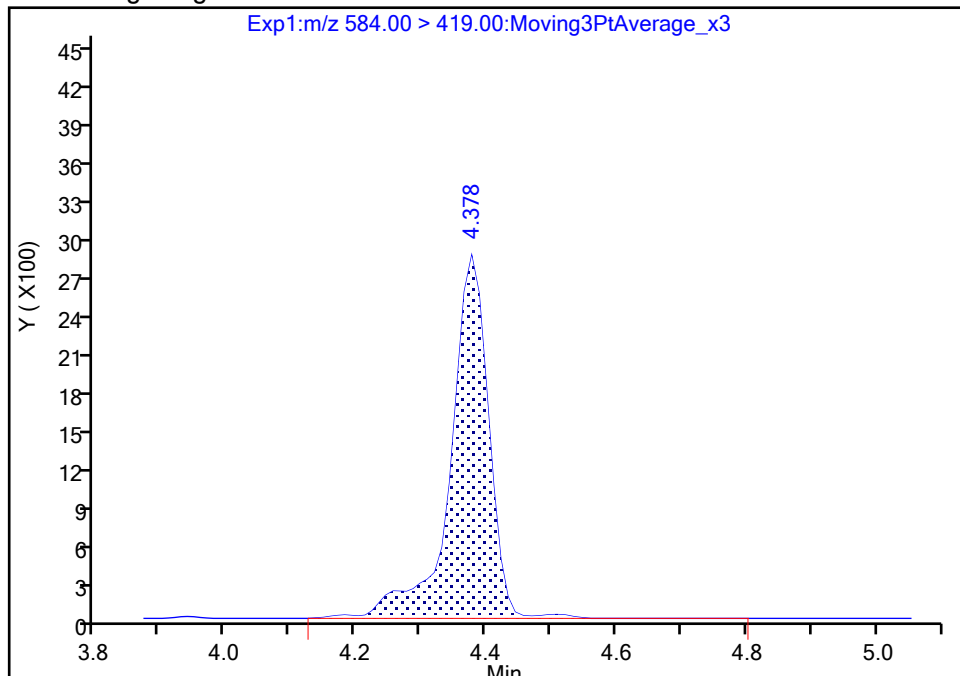
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL07.d
Injection Date: 22-Sep-2020 19:47:05 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

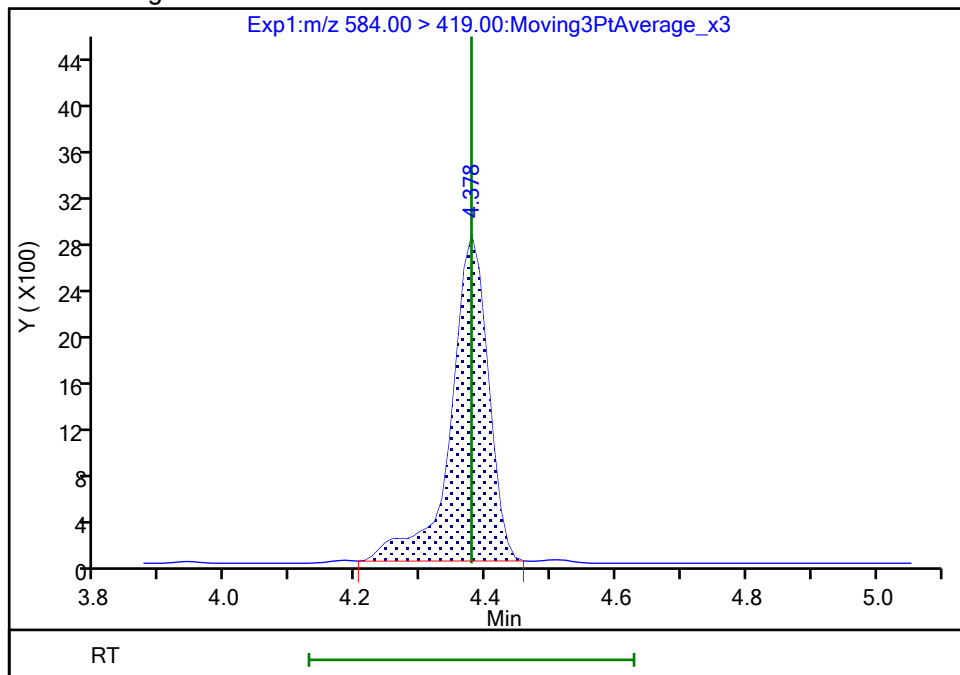
RT: 4.38
Area: 11682
Amount: 0.416506
Amount Units: ng/ml

Processing Integration Results



RT: 4.38
Area: 11209
Amount: 0.403539
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:41:32
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 561 of 906

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL08.d
 Lims ID: ICIS
 Client ID:
 Sample Type: ICIS Calib Level: 4
 Inject. Date: 22-Sep-2020 19:55:23 ALS Bottle#: 5 Worklist Smp#: 8
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: ICIS
 Misc. Info.: 200-0042904-008 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Sublist: chrom-PFC_LC812*sub3
 Method: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 23-Sep-2020 10:27:09 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1050

First Level Reviewer: chirgwinb

Date: 23-Sep-2020 09:35:45

Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.990	1.990	0.0	0.576	1014598	1.26		101	7246	
2 Perfluorobutanoic acid										
212.90 > 169.00	2.000	2.000	0.0	1.005	699180	0.9215		92.2	114	
D 3 13C5 PFPeA										
267.90 > 223.00	2.339	2.339	0.0	0.676	741010	1.28		102	3636	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.339	2.339	0.0	1.000	570602	0.9114		91.1	34.4	
D 47 13C3 PFBS										
301.90 > 80.00	2.353	2.353	0.0	0.680	826748	1.17		101	226162	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.353	2.353	0.0	1.000	626454	0.8840	Target=1.99	100	1564	
298.90 > 99.00	2.353	2.353	0.0	1.000	302087		2.07(1.00-2.99)	100	445	
61 1H,1H,2H,2H-perfluorohexanesulfo										
327.00 > 307.00	2.678	2.678	0.0	1.000	74642	0.8604		92.1	1961	
D 60 M2-4:2 FTS										
329.00 > 81.00	2.678	2.678	0.0	0.774	62673	1.18		101	182	
D 7 13C2 PFHxA										
315.00 > 270.00	2.716	2.716	0.0	0.785	762210	1.28		102	4123	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.716	2.716	0.0	1.000	622517	1.01	Target=11.58	101	269	
313.00 > 119.00	2.716	2.716	0.0	1.000	50048		12.44(5.79-17.37)	101	136	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.716	2.716	0.0	0.881	558214	0.8830	Target=3.36	94.1	1478	
349.00 > 99.00	2.716	2.716	0.0	0.881	153348		3.64(1.68-5.05)	94.1	679	
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.818	2.818	0.0	0.815	79305	1.43		114	1108	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
67 Perfluoro(2-propoxypropanoic) ac										
329.10 > 285.00	2.826	2.826	0.0	1.003	112753	0.8352		83.5	25.8	
D 11 18O2 PFHxS										
403.00 > 84.00	3.084	3.084	0.0	0.892	631349	1.25		106	1353	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.096	3.096	0.0	1.004	484522	0.8217	Target=4.59	90.3	1307	
399.00 > 99.00	3.084	3.096	-0.012	1.000	105236		4.60(2.29-6.88)	90.3	224	M
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.096	3.096	0.0	1.000	531540	1.01	Target=3.29	101	291	
363.00 > 169.00	3.096	3.096	0.0	1.000	158989		3.34(1.65-4.94)	101	739	
D 9 13C4 PFHpA										
367.00 > 322.00	3.096	3.096	0.0	0.895	659408	1.22		97.3	3502	
77 DONA										
377.00 > 251.00	3.132	3.132	0.0	0.829	1142080	0.9043	Target=2.40	96.0	2784	
377.00 > 85.00	3.132	3.132	0.0	0.829	467376		2.44(1.20-3.60)	96.0	1143	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.450	3.450	0.0	0.914	445834	0.9388	Target=6.94	98.6	2731	
449.00 > 99.00	3.450	3.450	0.0	0.914	62933		7.08(3.47-10.41)	98.6	540	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.450	3.450	0.0	0.997	82963	1.23		103	699	
13 1H,1H,2H,2H-perfluorooctanesulfo										
427.00 > 407.00	3.450	3.450	0.0	1.000	48798	0.8752		92.3	479	
D 14 13C4 PFOA										
417.00 > 372.00	3.458	3.458	0.0	1.000	701817	1.26		101	2814	
* 62 13C2 PFOA										
415.00 > 370.00	3.458	3.458	0.0		704481	1.25			3074	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.458	3.458	0.0	1.000	571265	0.9855	Target=2.26	98.6	261	
413.00 > 169.00	3.458	3.458	0.0	1.000	249756		2.29(1.13-3.38)	98.6	689	
D 18 13C4 PFOS										
503.00 > 80.00	3.776	3.776	0.0	1.092	489827	1.18		99.1	2180	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.776	3.776	0.0	1.000	408627	0.9174	Target=6.66	98.9	1039	M
499.00 > 99.00	3.776	3.776	0.0	1.000	57587		7.10(3.33-9.99)	98.9	478	M
D 19 13C5 PFNA										
468.00 > 423.00	3.797	3.797	0.0	1.098	608945	1.30		104	6828	
20 Perfluorononanoic acid										
463.00 > 419.00	3.797	3.797	0.0	1.000	452952	0.9130	Target=6.07	91.3	176	
463.00 > 169.00	3.797	3.797	0.0	1.000	77720		5.83(3.03-9.10)	91.3	1269	
69 9-Chlorohexadecafluoro-3-oxanona										
531.00 > 351.00	3.941	3.941	0.0	1.044	353549	0.9019		96.8	2527	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.072	4.072	0.0	1.078	326652	0.9279	Target=3.49	96.7	4110	
549.00 > 99.00	4.062	4.072	-0.010	1.076	96516		3.38(1.75-5.24)	96.7	588	
24 Perfluorodecanoic acid										
513.00 > 469.00	4.092	4.092	0.0	1.000	437800	0.9639	Target=6.79	96.4	805	
513.00 > 169.00	4.092	4.092	0.0	1.000	64247		6.81(3.39-10.18)	96.4	864	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 23 13C2 PFDA										
515.00 > 470.00	4.092	4.092	0.0	1.183	573806	1.28		102	3763	
25 1H,1H,2H,2H-perfluorodecanesulfo										
527.00 > 507.00	4.103	4.103	0.0	1.000	28279	0.9409		98.2	886	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.103	4.103	0.0	1.186	90925	1.14		95.4	973	
D 21 13C8 FOSA										
506.00 > 78.00	4.151	4.151	0.0	1.200	885746	1.23		98.1	3524	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.151	4.151	0.0	1.000	666683	1.01		101	1367	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.235	4.235	0.0	1.224	31030	1.22		97.2	133	
28 N-methylperfluorooctanesulfonami										
570.00 > 419.00	4.245	4.245	0.0	1.002	22030	0.9404		94.0	235	M
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.332	4.332	0.0	1.147	287760	0.9770	Target=3.11	101	1941	
599.00 > 99.00	4.332	4.332	0.0	1.147	86892		3.31(1.55-4.66)	101	803	
D 30 13C2 PFUnA										
565.00 > 520.00	4.355	4.355	0.0	1.259	416873	1.23		98.5	5286	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.355	4.355	0.0	1.000	340391	1.03	Target=6.33	103	462	
563.00 > 169.00	4.355	4.355	0.0	1.000	51836		6.57(3.17-9.50)	103	1051	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.366	4.366	0.0	1.262	32884	1.20		95.9	349	
33 N-ethylperfluorooctanesulfonamid										
584.00 > 419.00	4.378	4.378	0.0	1.003	23746	0.9859		98.6	477	M
66 11-Chloroeicosafuoro-3-oxaundec										
631.00 > 451.00	4.444	4.444	0.0	1.177	316530	0.9361		99.4	3949	
D 36 13C2 PFDaA										
615.00 > 570.00	4.585	4.585	0.0	1.326	462535	1.29		103	4956	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.585	4.585	0.0	1.000	364468	1.01	Target=5.23	101	330	
613.00 > 169.00	4.585	4.585	0.0	1.000	70566		5.16(2.62-7.85)	101	1504	
74 1H,1H,2H,2H-perfluorododecanesul										
627.00 > 607.00	4.610	4.610	0.0	1.123	17497	1.05		109	806	
75 Perfluorododecanesulfonic acid (										
699.00 > 80.00	4.763	4.763	0.0	1.261	85863	0.9085	Target=0.47	93.9	367	
699.00 > 99.00	4.763	4.763	0.0	1.261	190978		0.45(0.23-0.70)	93.9	2514	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.802	4.802	0.0	1.047	291377	0.9508	Target=3.57	95.1	170	
663.00 > 169.00	4.802	4.802	0.0	1.047	88216		3.30(1.78-5.35)	95.1	1480	
D 43 13C2 PFTeDA										
715.00 > 670.00	4.998	4.998	0.0	1.445	343318	1.35		108	3889	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.998	4.998	0.0	1.000	57042	0.9067	Target=1.07	90.7	1452	
713.00 > 219.00	4.988	4.998	-0.010	0.998	53786		1.06(0.54-1.61)	90.7	2215	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags

D 44 13C2 PFHxDA

815.00 > 770.00 5.361 5.361 0.0 1.550 358063 1.24 99.2 3027

45 Perfluorohexadecanoic acid

813.00 > 769.00 5.372 5.372 0.0 1.002 258509 1.02 Target=3.00 102 201

813.00 > 169.00 5.372 5.372 0.0 1.002 84585 3.06(1.50-4.49) 102 1900

46 Perfluorooctadecanoic acid

913.00 > 869.00 5.756 5.756 0.0 1.073 207162 0.9677 Target=2.88 96.8 214

913.00 > 169.00 5.756 5.756 0.0 1.073 73347 2.82(1.44-4.32) 96.8 1096

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

PFAS32NCIC4_00011

Amount Added: 100.00

Units: uL

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL08.d

Injection Date: 22-Sep-2020 19:55:23

Instrument ID: LC812

Lims ID: ICIS

Client ID:

Operator ID: lc812tech

ALS Bottle#: 5

Worklist Smp#: 8

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

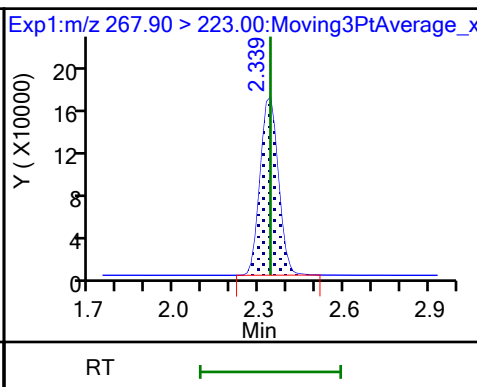
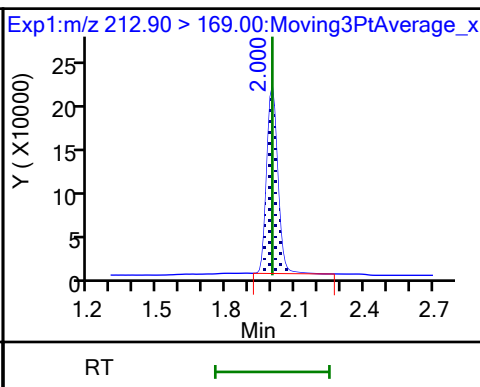
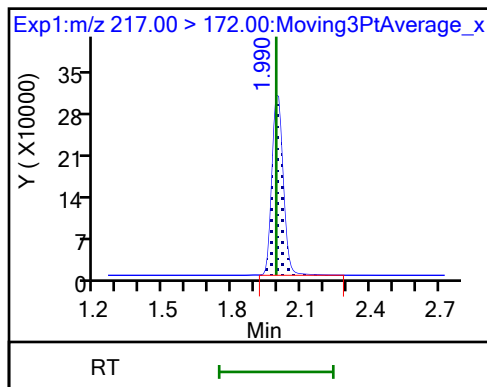
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid

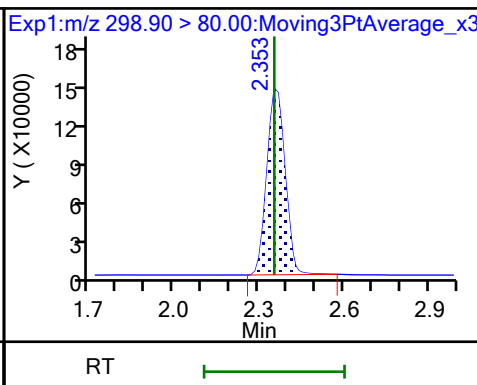
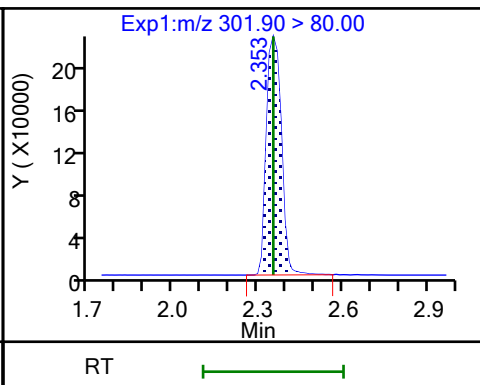
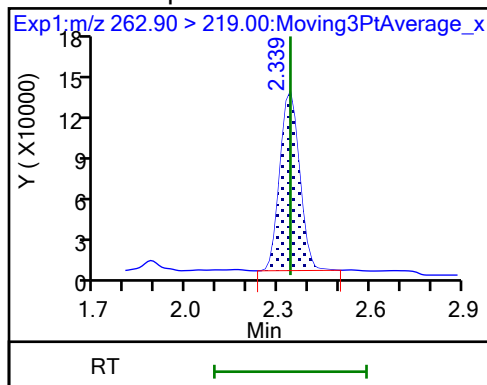
D 3 13C5 PFPeA



4 Perfluoropentanoic acid

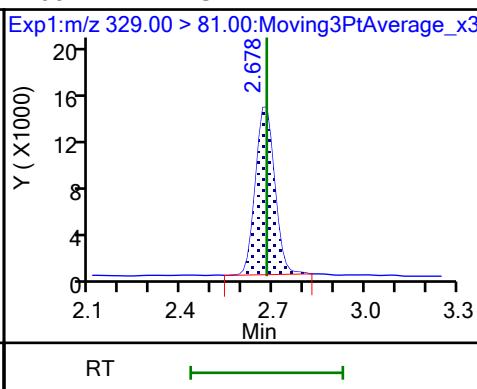
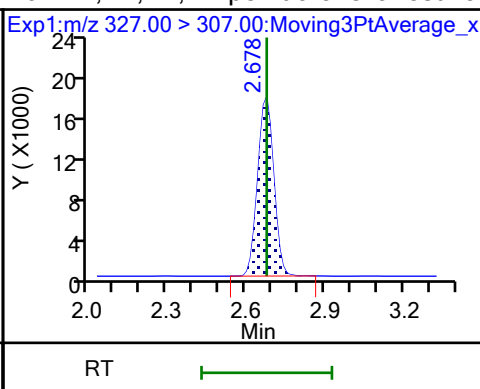
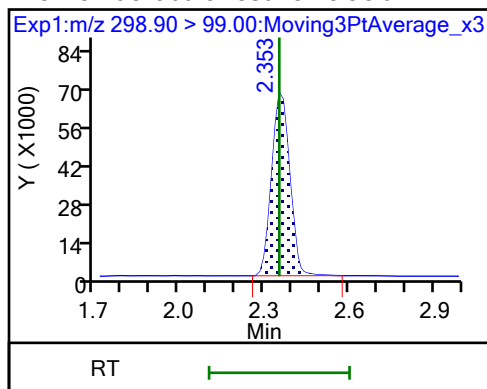
D 47 13C3 PFBS

5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

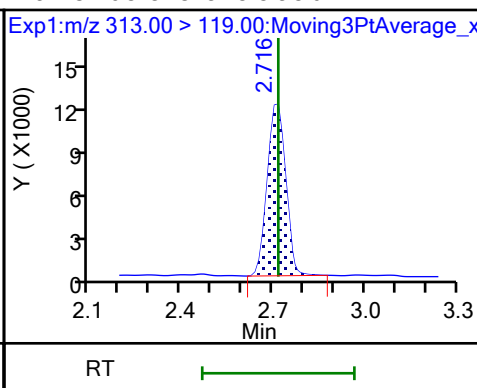
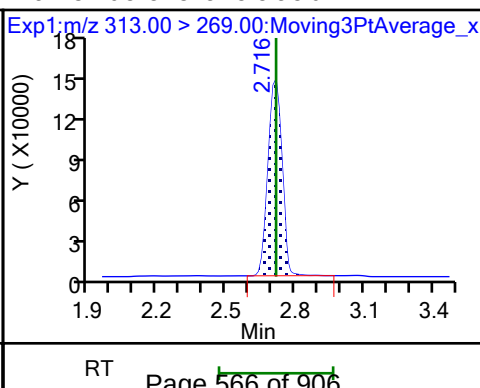
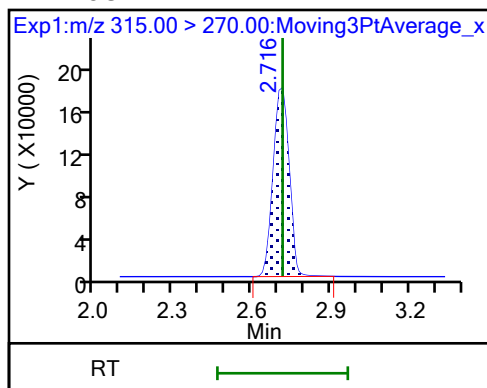
61 1H,1H,2H,2H-perfluorohexanesulfo D 60 M2-4:2 FTS

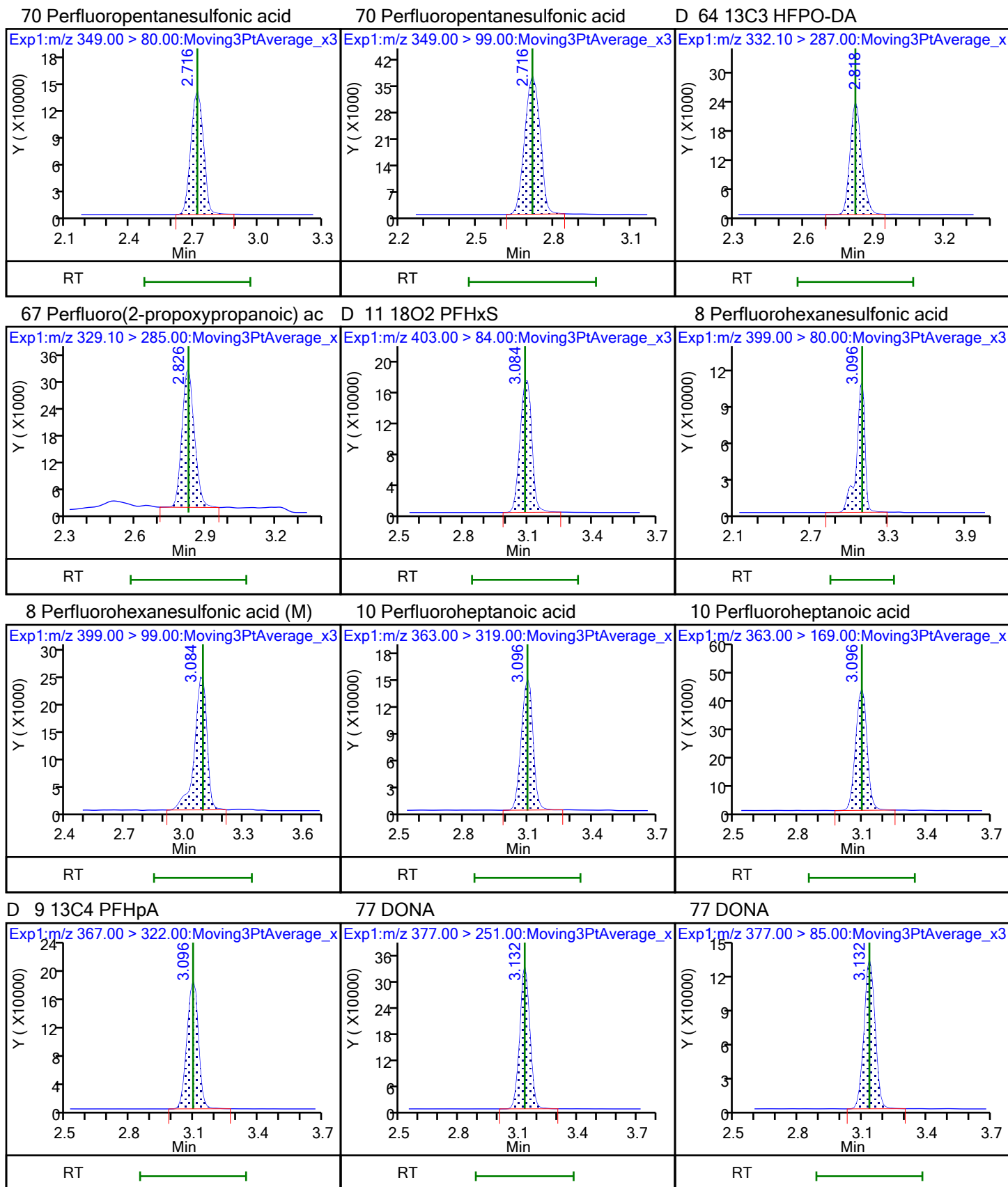


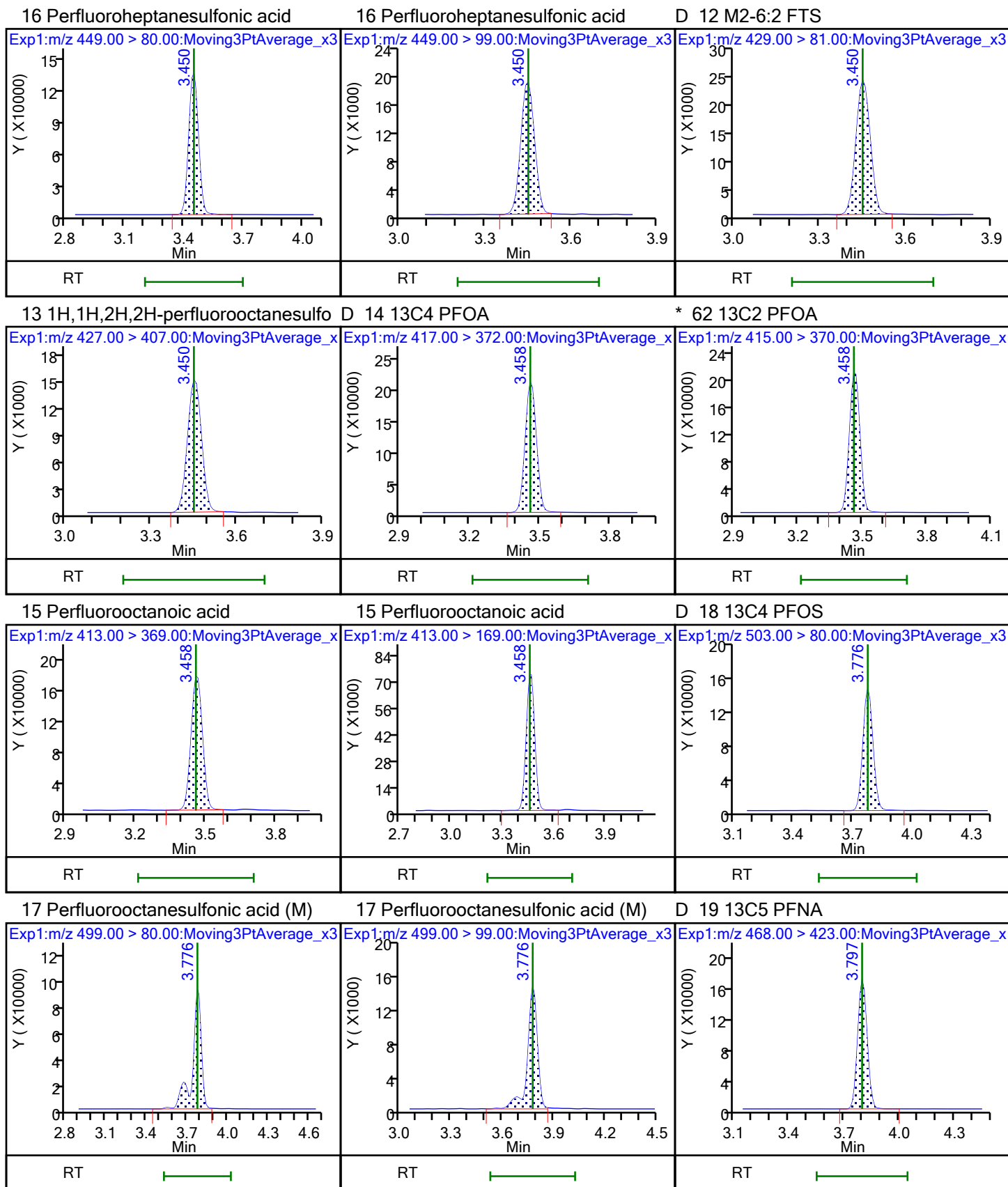
D 7 13C2 PFHxA

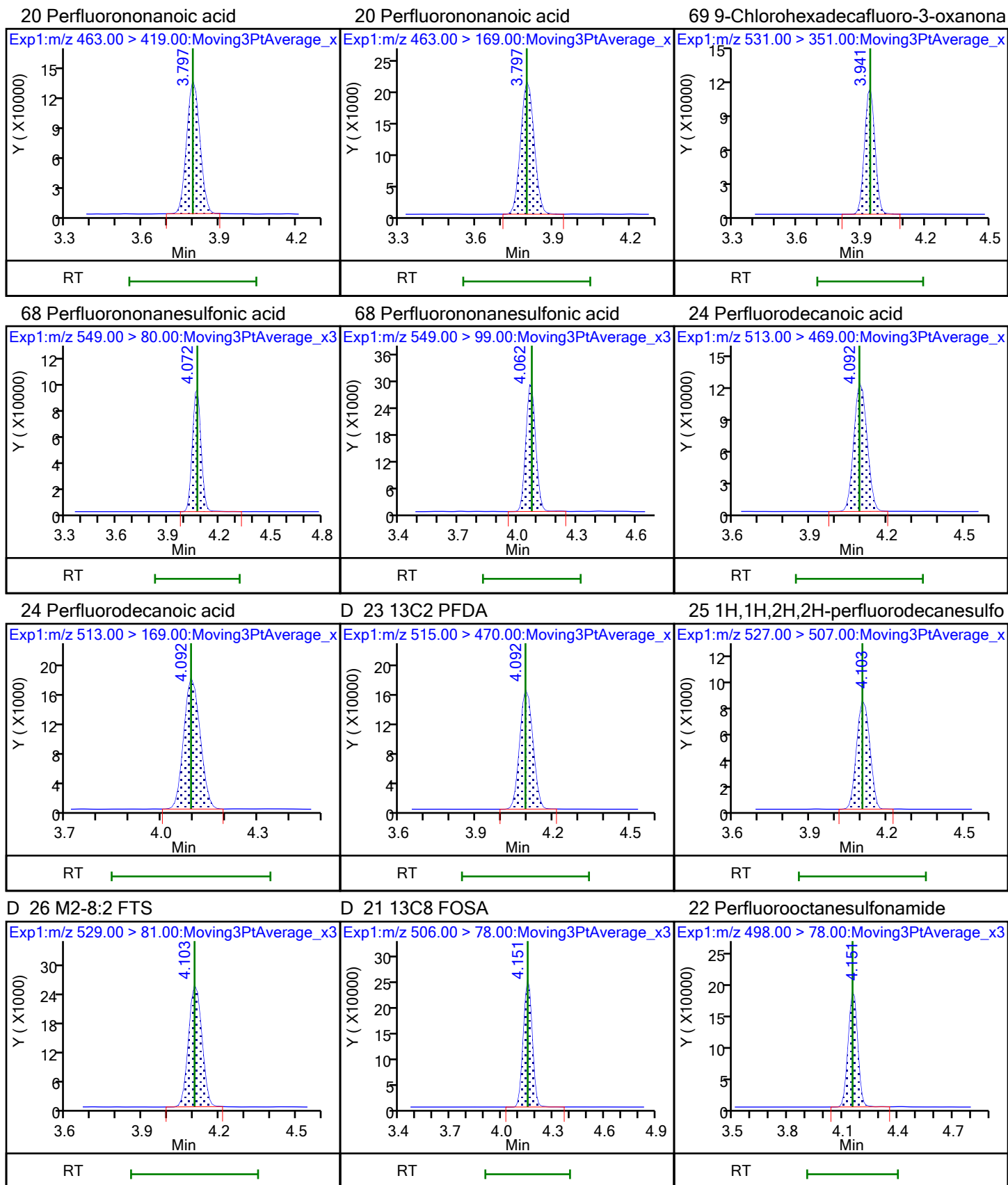
6 Perfluorohexanoic acid

6 Perfluorohexanoic acid



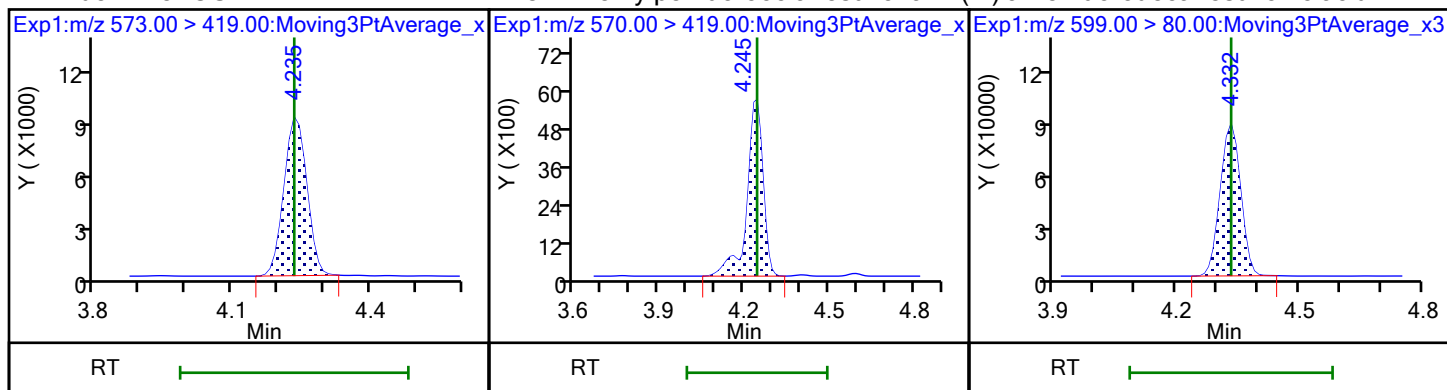






D 27 d3-NMeFOSAA

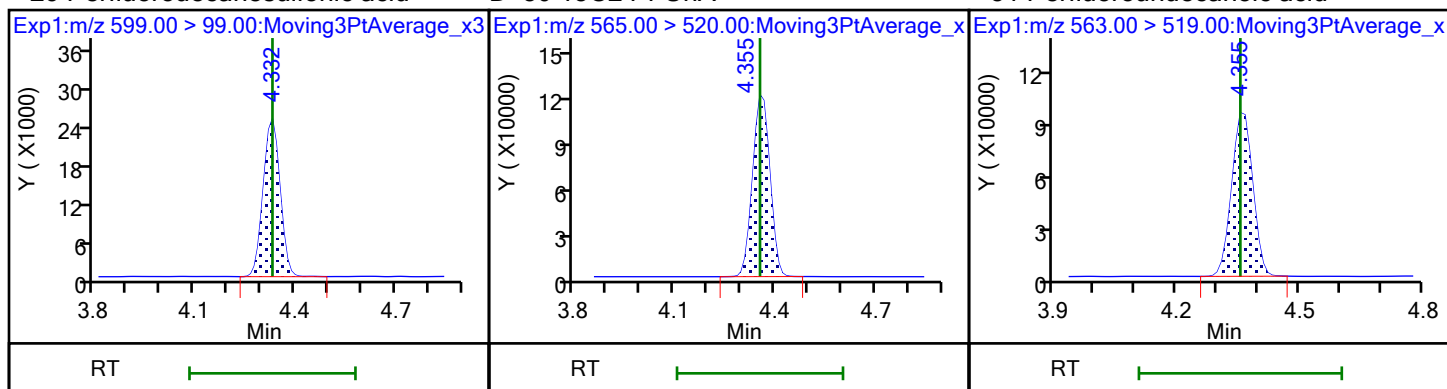
28 N-methylperfluorooctanesulfonami (M29 Perfluorodecanesulfonic acid



29 Perfluorodecanesulfonic acid

D 30 13C2 PFUnA

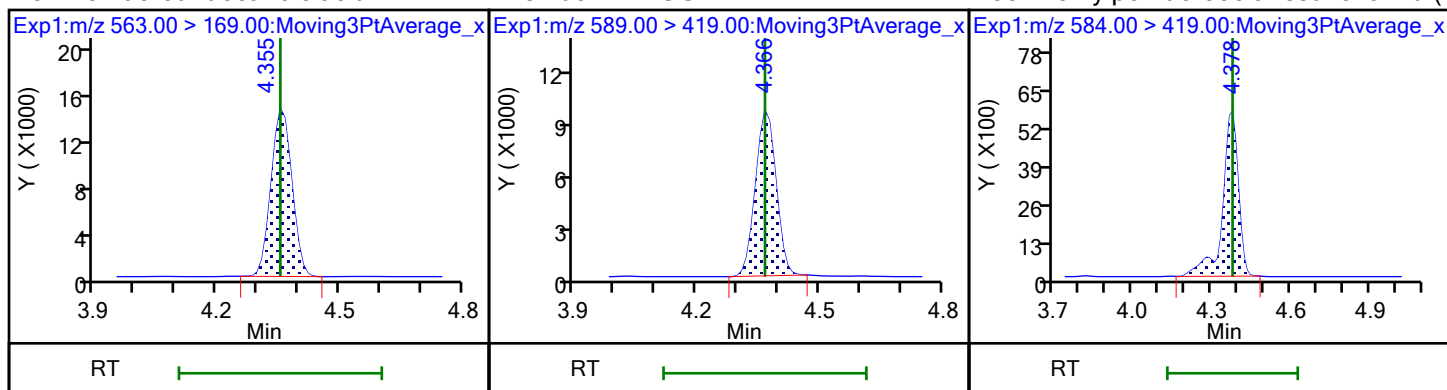
31 Perfluoroundecanoic acid



31 Perfluoroundecanoic acid

D 32 d5-NEtFOSAA

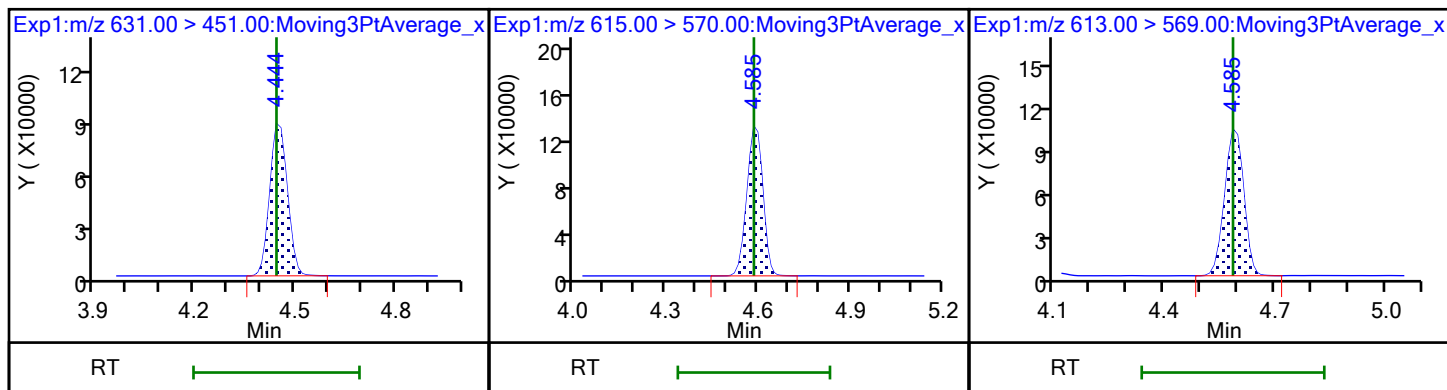
33 N-ethylperfluorooctanesulfonamid (M



66 11-Chloroeicosafluoro-3-oxaundec

D 36 13C2 PFDoA

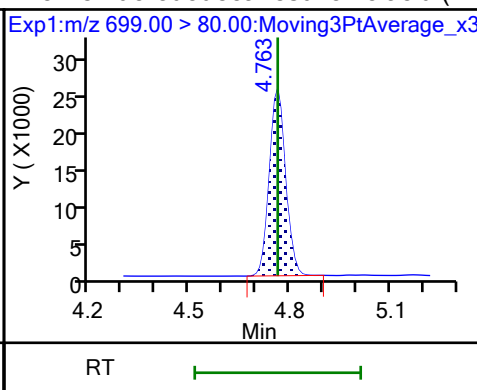
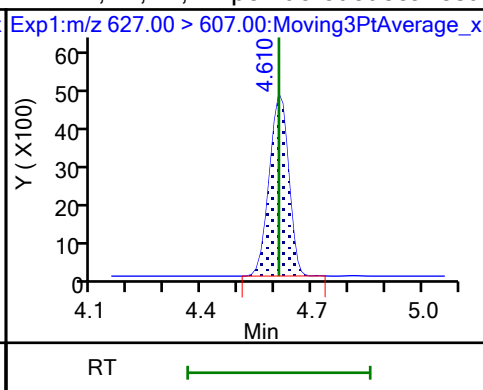
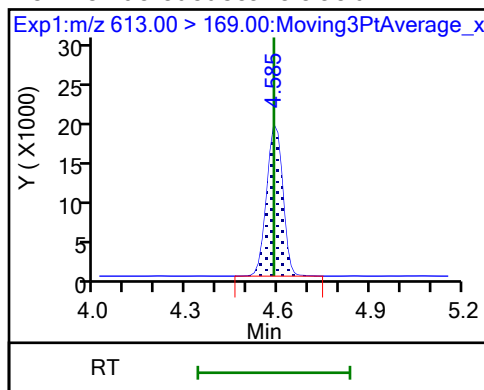
37 Perfluorododecanoic acid



37 Perfluorododecanoic acid

74 1H,1H,2H,2H-perfluorododecanesul

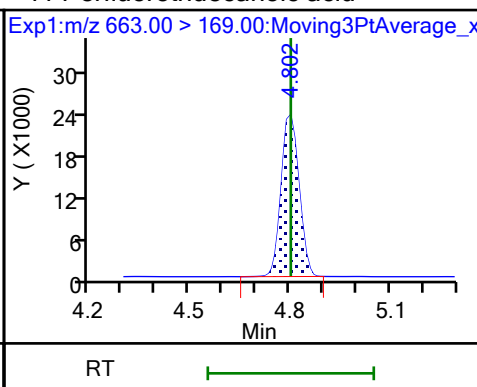
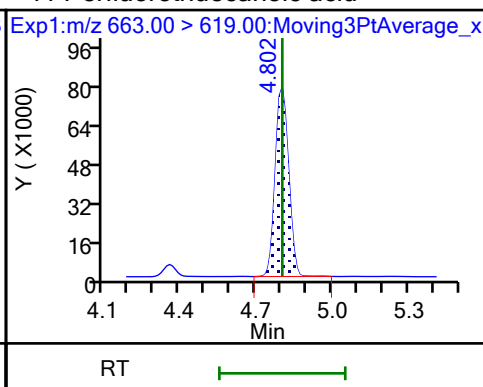
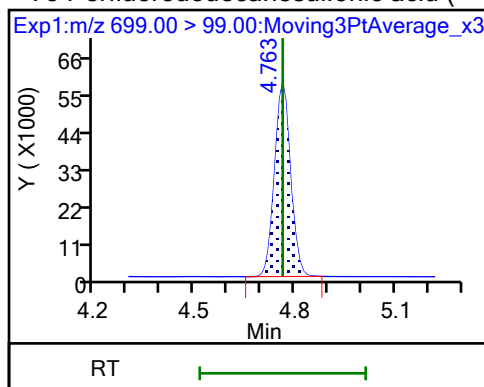
75 Perfluorododecanesulfonic acid (



75 Perfluorododecanesulfonic acid (

41 Perfluorotridecanoic acid

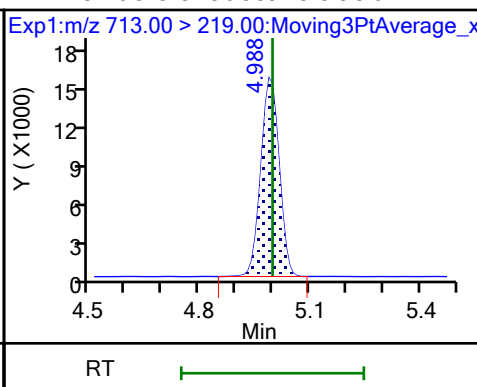
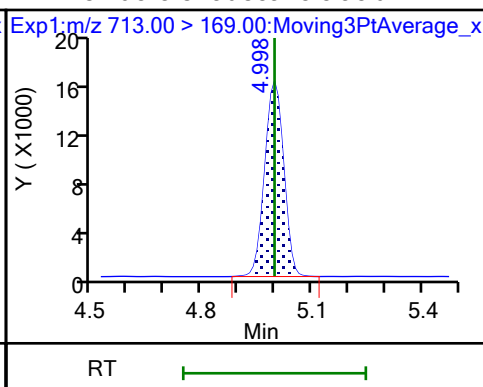
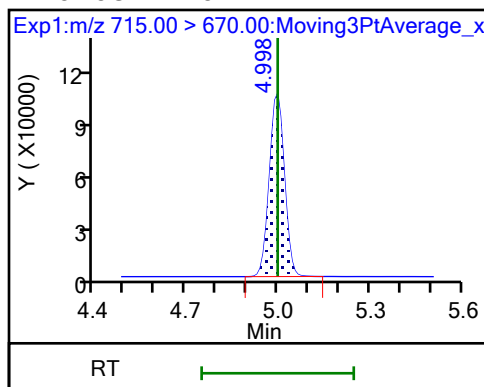
41 Perfluorotridecanoic acid



D 43 13C2 PFTeDA

42 Perfluorotetradecanoic acid

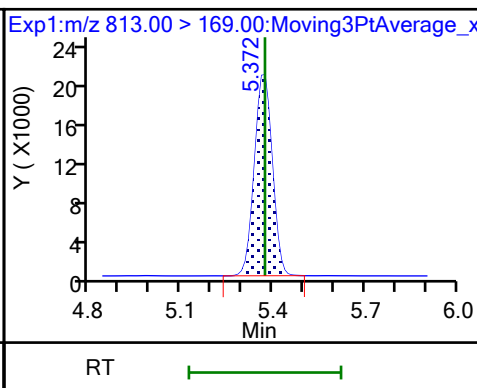
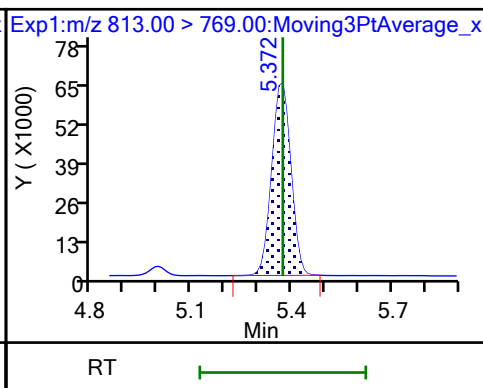
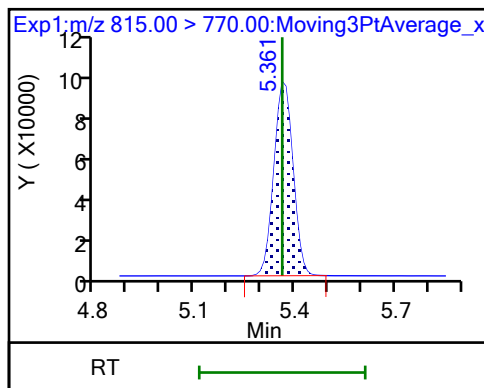
42 Perfluorotetradecanoic acid



D 44 13C2 PFHxDA

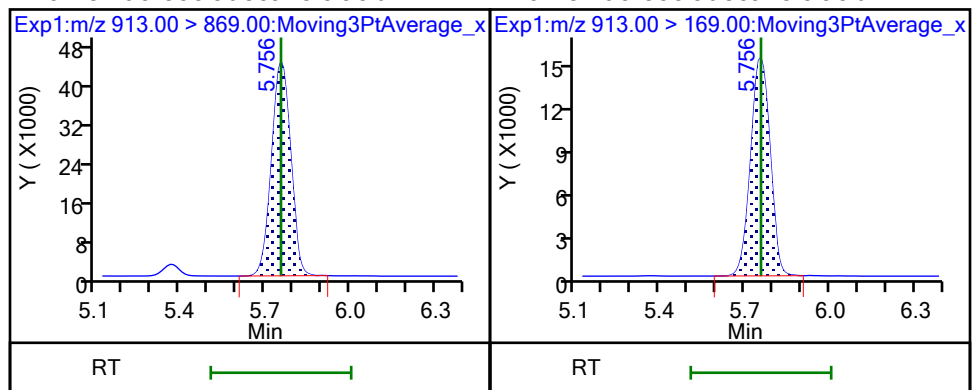
45 Perfluorohexadecanoic acid

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid

46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

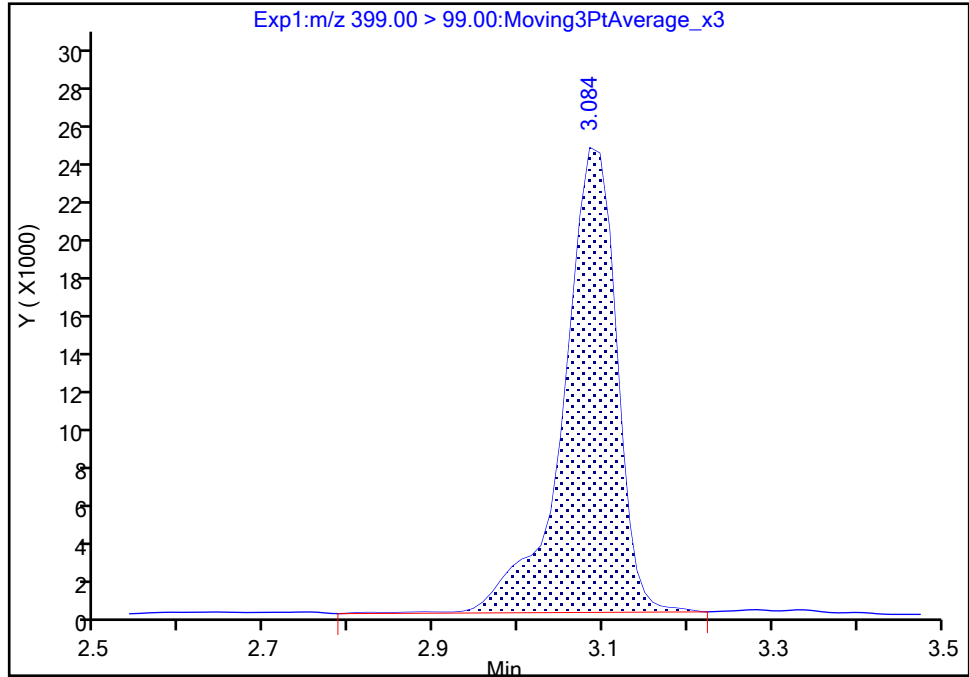
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL08.d
Injection Date: 22-Sep-2020 19:55:23 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

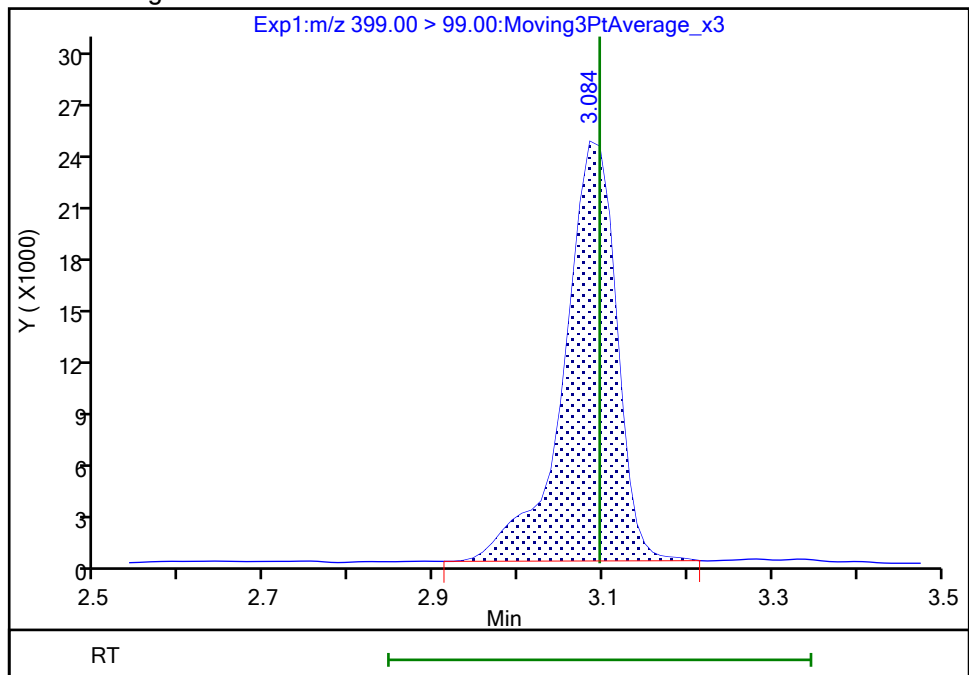
RT: 3.08
Area: 106102
Amount: 0.821704
Amount Units: ng/ml

Processing Integration Results



RT: 3.08
Area: 105236
Amount: 0.821704
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:42:07

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

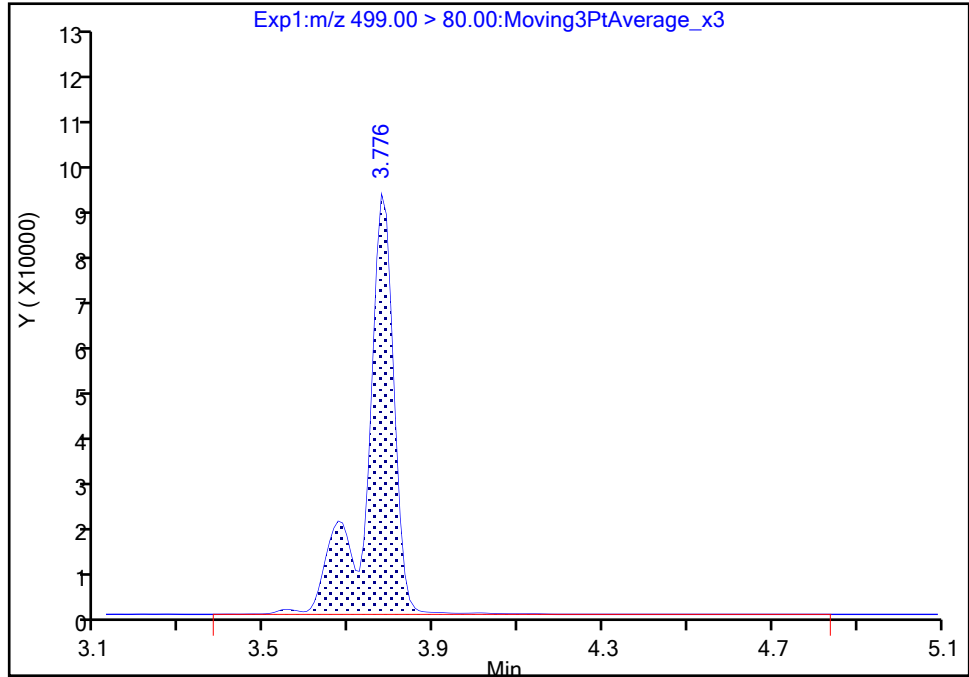
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL08.d
Injection Date: 22-Sep-2020 19:55:23 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

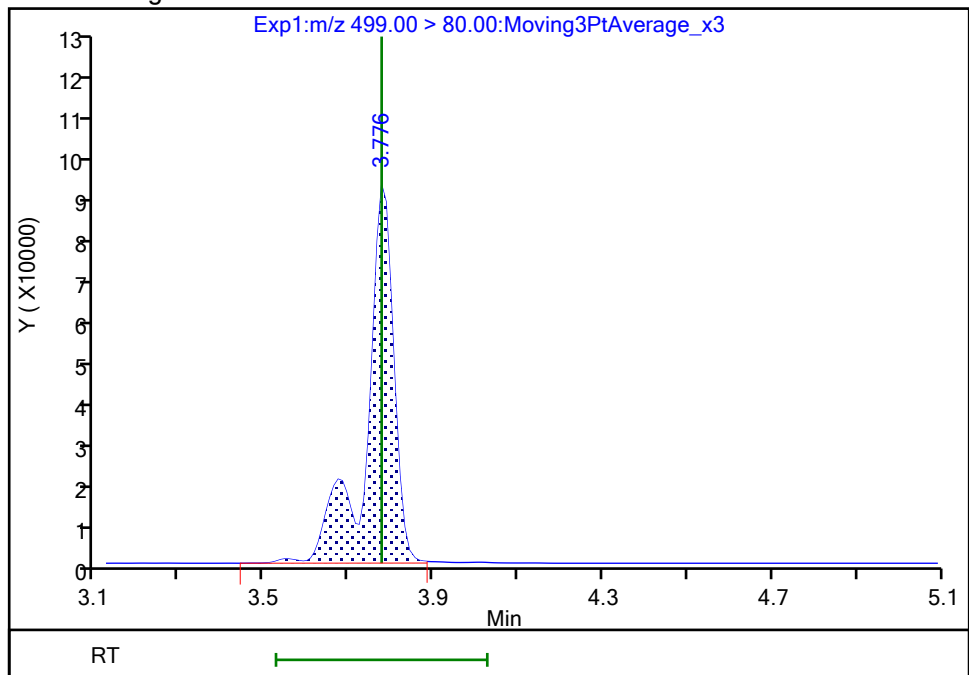
RT: 3.78
Area: 412215
Amount: 0.922486
Amount Units: ng/ml

Processing Integration Results



RT: 3.78
Area: 408627
Amount: 0.917373
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:42:35

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

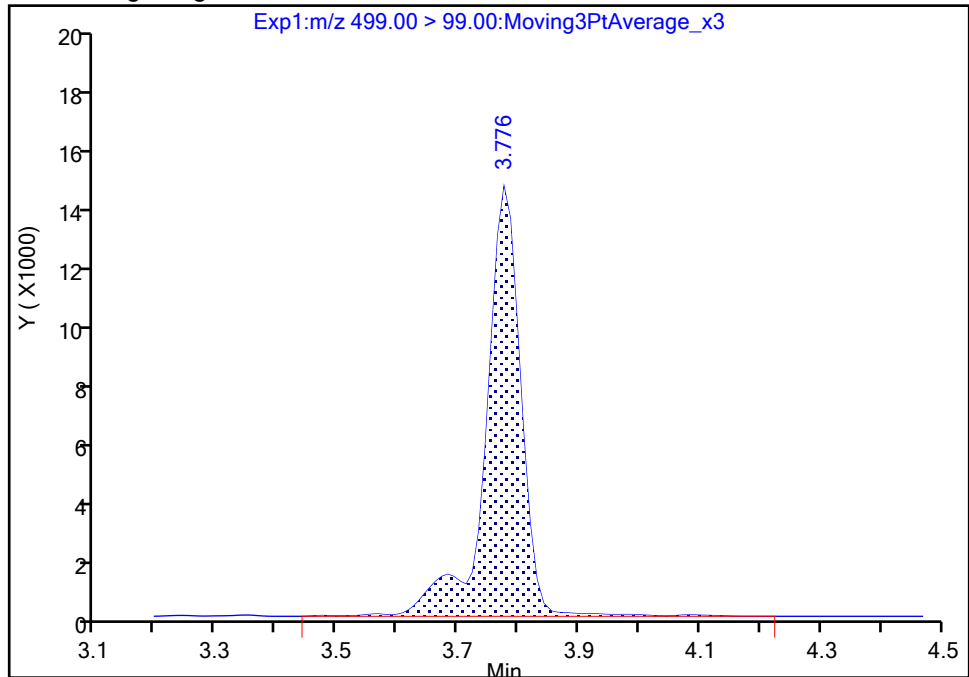
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL08.d
Injection Date: 22-Sep-2020 19:55:23 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

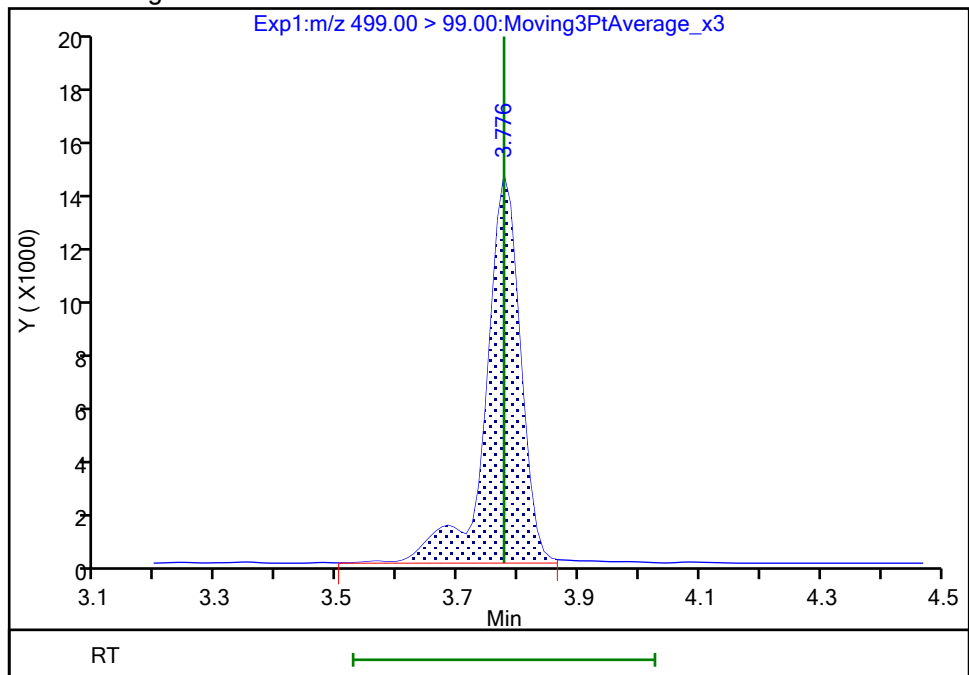
RT: 3.78
Area: 58556
Amount: 0.922486
Amount Units: ng/ml

Processing Integration Results



RT: 3.78
Area: 57587
Amount: 0.917373
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:42:42

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

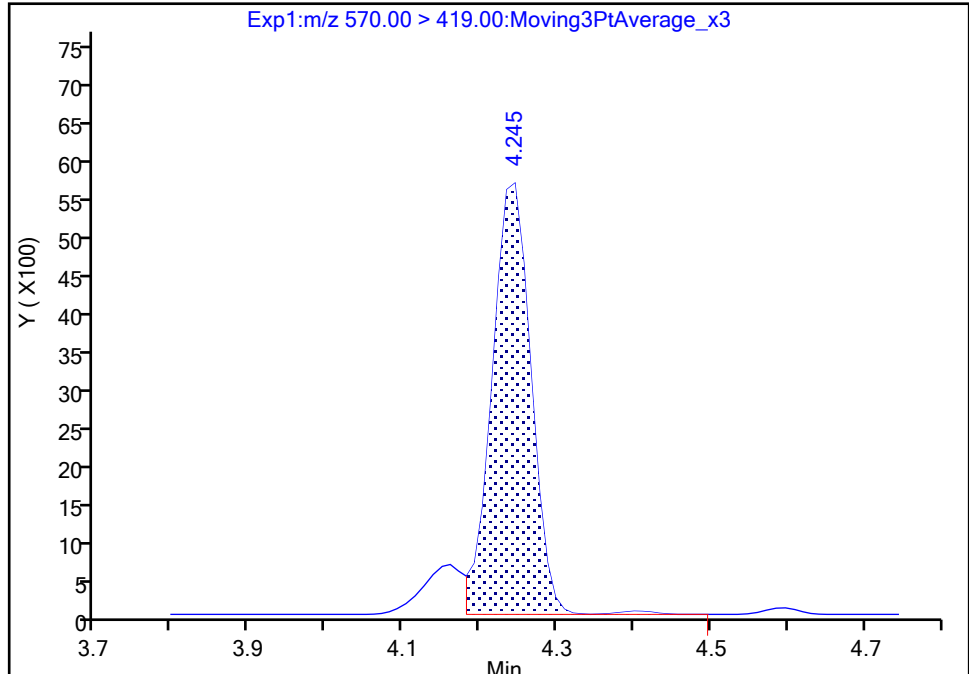
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL08.d
Injection Date: 22-Sep-2020 19:55:23 Instrument ID: LC812
Lims ID: ICIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

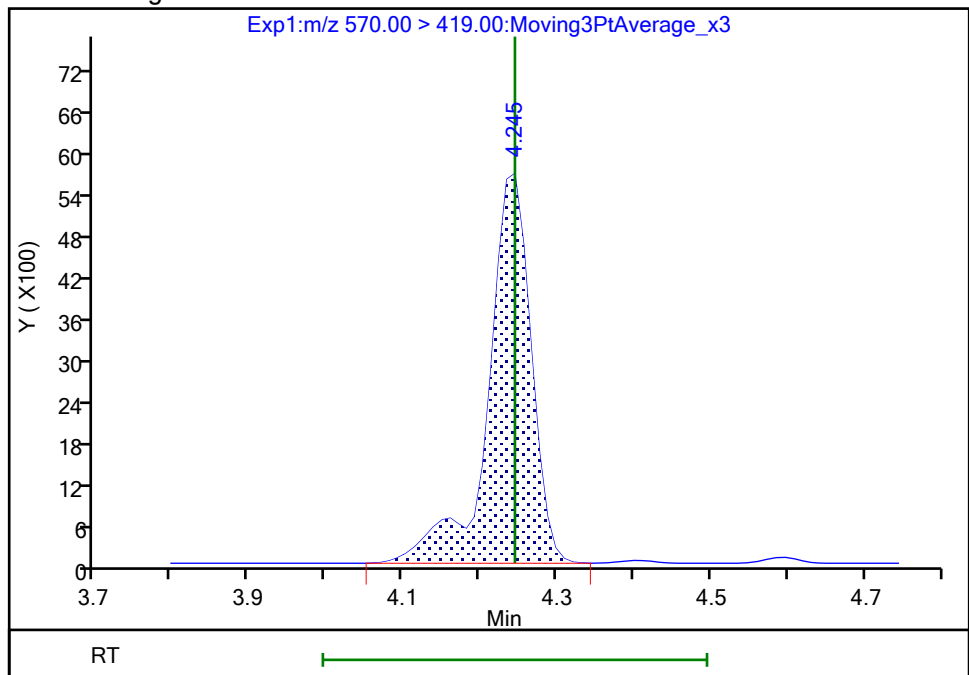
RT: 4.25
Area: 19829
Amount: 0.886625
Amount Units: ng/ml

Processing Integration Results



RT: 4.25
Area: 22030
Amount: 0.940374
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:42:58

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL08.d

Injection Date: 22-Sep-2020 19:55:23

Instrument ID: LC812

Lims ID: ICIS

Client ID:

Operator ID: lc812tech

ALS Bottle#:

5

Worklist Smp#: 8

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

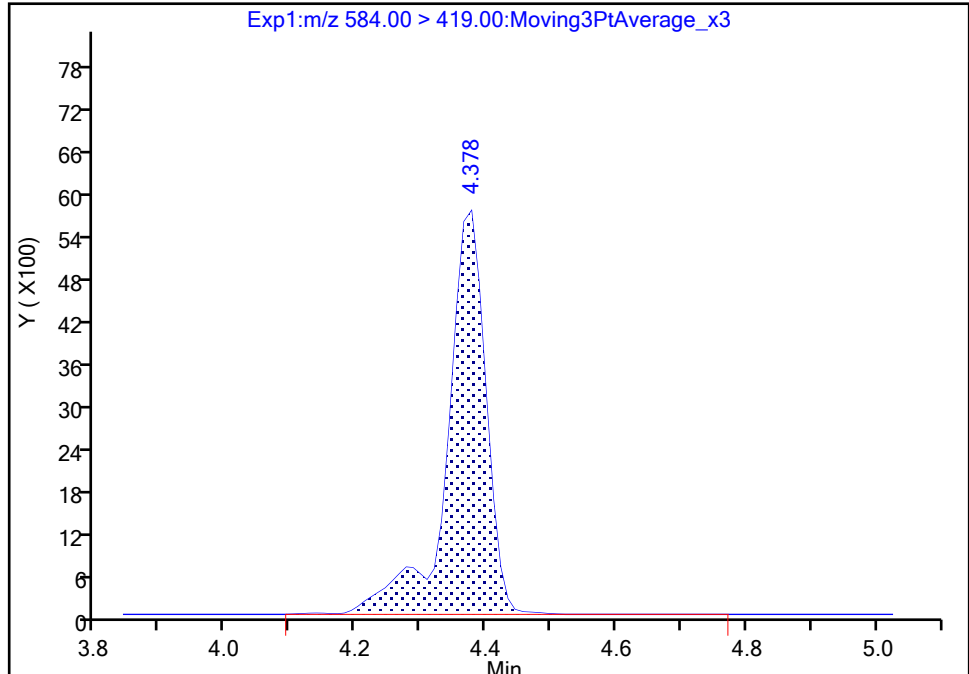
Detector: EXP1

33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

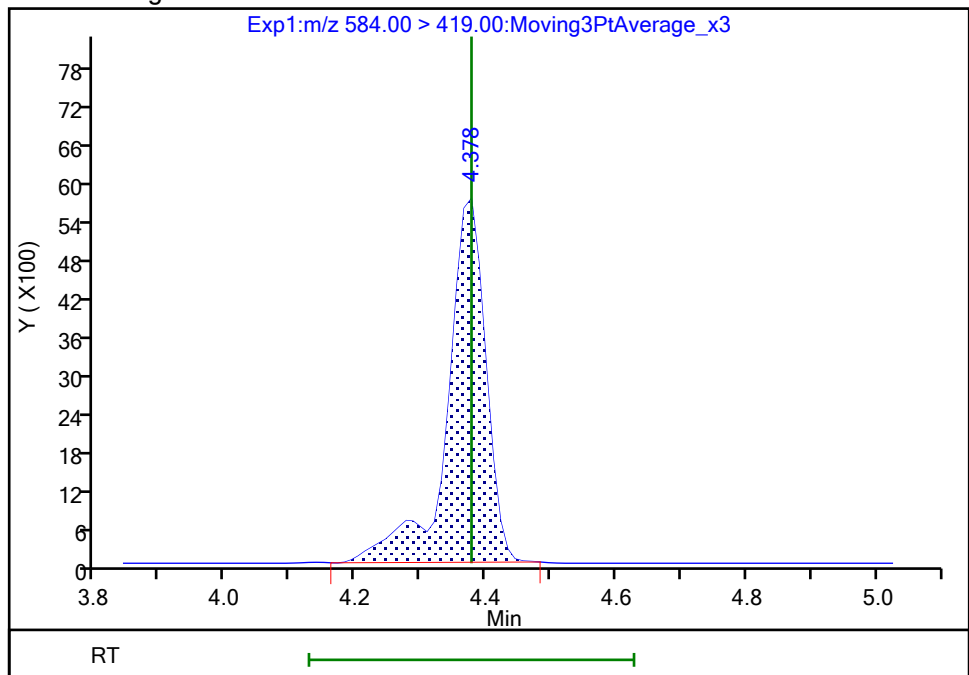
RT: 4.38
Area: 24062
Amount: 0.995004
Amount Units: ng/ml

Processing Integration Results



RT: 4.38
Area: 23746
Amount: 0.985940
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:43:05

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL09.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 22-Sep-2020 20:03:40 ALS Bottle#: 6 Worklist Smp#: 9
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: IC
 Misc. Info.: 200-0042904-009 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Sublist: chrom-PFC_LC812*sub3
 Method: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 23-Sep-2020 10:27:12 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1050

First Level Reviewer: chirgwinb

Date: 23-Sep-2020 09:44:32

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 1 13C4 PFBA										
217.00 > 172.00	2.000	1.990	0.010	0.577	1036961	1.25		99.9	7366	
2 Perfluorobutanoic acid										
212.90 > 169.00	2.000	2.000	0.0	1.000	1812801	2.34		93.5	293	
D 3 13C5 PFPeA										
267.90 > 223.00	2.339	2.339	0.0	0.675	732056	1.23		98.4	3419	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.339	2.339	0.0	1.000	1432994	2.32		92.7	84.1	
D 47 13C3 PFBS										
301.90 > 80.00	2.353	2.353	0.0	0.679	844132	1.16		100	236734	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.367	2.353	0.014	1.006	1532425	2.12	Target=1.99	95.8	3951	
298.90 > 99.00	2.367	2.353	0.014	1.006	783068		1.96(1.00-2.99)	95.8	1064	
61 1H,1H,2H,2H-perfluorohexanesulfo										
327.00 > 307.00	2.678	2.678	0.0	1.000	208163	2.32		99.3	3714	
D 60 M2-4:2 FTS										
329.00 > 81.00	2.678	2.678	0.0	0.772	64846	1.19		102	136	
D 7 13C2 PFHxA										
315.00 > 270.00	2.716	2.716	0.0	0.783	770416	1.26		101	4979	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.716	2.716	0.0	1.000	1502717	2.42	Target=11.58	96.9	599	
313.00 > 119.00	2.716	2.716	0.0	1.000	118970		12.63(5.79-17.37)	96.9	380	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.716	2.716	0.0	0.877	1414996	2.31	Target=3.36	98.4	3765	
349.00 > 99.00	2.716	2.716	0.0	0.877	407087		3.48(1.68-5.05)	98.4	1686	
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.818	2.818	0.0	0.813	79948	1.40		112	776	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
67 Perfluoro(2-propoxypropanoic) ac										M
329.10 > 285.00	2.826	2.826	0.0	1.003	275773	2.03		81.1	65.5	M
D 11 18O2 PFHxS										
403.00 > 84.00	3.096	3.084	0.012	0.893	612150	1.18		99.6	1840	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.096	3.096	0.0	1.000	1262935	2.21	Target=4.59	97.1	3838	
399.00 > 99.00	3.096	3.096	0.0	1.000	276774		4.56(2.29-6.88)	97.1	782	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.096	3.096	0.0	1.000	1342731	2.53	Target=3.29	101	707	
363.00 > 169.00	3.096	3.096	0.0	1.000	410994		3.27(1.65-4.94)	101	1956	
D 9 13C4 PFHpA										
367.00 > 322.00	3.096	3.096	0.0	0.893	662941	1.19		95.1	3240	
77 DONA										
377.00 > 251.00	3.132	3.132	0.0	0.830	2879997	2.09	Target=2.40	88.8	4520	
377.00 > 85.00	3.140	3.132	0.008	0.832	1242139		2.32(1.20-3.60)	88.8	2372	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.450	3.450	0.0	0.914	1168488	2.26	Target=6.94	94.8	4443	
449.00 > 99.00	3.450	3.450	0.0	0.914	165705		7.05(3.47-10.41)	94.8	983	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.458	3.450	0.008	0.998	84414	1.21		102	786	
13 1H,1H,2H,2H-perfluorooctanesulfo										
427.00 > 407.00	3.458	3.450	0.008	1.000	124081	2.19		92.3	3636	
D 14 13C4 PFOA										
417.00 > 372.00	3.467	3.458	0.009	1.000	716010	1.26		100	5326	
* 62 13C2 PFOA										
415.00 > 370.00	3.467	3.458	0.009		724358	1.25			2774	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.467	3.458	0.009	1.000	1416297	2.39	Target=2.26	95.8	627	
413.00 > 169.00	3.467	3.458	0.009	1.000	619367		2.29(1.13-3.38)	95.8	2992	
D 18 13C4 PFOS										
503.00 > 80.00	3.775	3.776	-0.001	1.089	534075	1.26		105	1983	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.775	3.776	-0.001	1.000	1055393	2.17	Target=6.66	93.7	1536	M
499.00 > 99.00	3.775	3.776	-0.001	1.000	160829		6.56(3.33-9.99)	93.7	1030	M
D 19 13C5 PFNA										
468.00 > 423.00	3.796	3.797	-0.001	1.095	584597	1.22		97.3	4035	
20 Perfluorononanoic acid										
463.00 > 419.00	3.796	3.797	-0.001	1.000	1217403	2.56	Target=6.07	102	455	
463.00 > 169.00	3.796	3.797	-0.001	1.000	184685		6.59(3.03-9.10)	102	2696	
69 9-Chlorohexadecafluoro-3-oxanona										
531.00 > 351.00	3.931	3.941	-0.010	1.041	916716	2.14		92.0	5929	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.061	4.072	-0.011	1.076	846240	2.20	Target=3.49	91.9	6446	
549.00 > 99.00	4.061	4.072	-0.011	1.076	250995		3.37(1.75-5.24)	91.9	1493	
24 Perfluorodecanoic acid										
513.00 > 469.00	4.091	4.092	-0.001	1.000	1027763	2.20	Target=6.79	88.0	1543	
513.00 > 169.00	4.091	4.092	-0.001	1.000	155664		6.60(3.39-10.18)	88.0	1496	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 23 13C2 PFDA										
515.00 > 470.00	4.091	4.092	-0.001	1.180	590304	1.28		102	4189	
25 1H,1H,2H,2H-perfluorodecanesulfo										
527.00 > 507.00	4.103	4.103	0.0	1.000	73312	2.34		97.6	2215	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.103	4.103	0.0	1.183	94893	1.16		96.8	979	
D 21 13C8 FOSA										
506.00 > 78.00	4.150	4.151	-0.001	1.197	950469	1.28		102	3443	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.150	4.151	-0.001	1.000	1685296	2.37		94.8	2138	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.235	4.235	0.0	1.222	32996	1.26		101	63.3	
28 N-methylperfluorooctanesulfonami										
570.00 > 419.00	4.235	4.245	-0.010	1.000	59827	2.40		96.1	402	M
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.332	4.332	0.0	1.148	692018	2.15	Target=3.11	89.4	4134	
599.00 > 99.00	4.332	4.332	0.0	1.148	223788		3.09(1.55-4.66)	89.4	2726	
D 30 13C2 PFUnA										
565.00 > 520.00	4.355	4.355	0.0	1.256	411827	1.18		94.7	3028	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.355	4.355	0.0	1.000	795804	2.45	Target=6.33	98.0	1134	
563.00 > 169.00	4.355	4.355	0.0	1.000	122222		6.51(3.17-9.50)	98.0	2298	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.367	4.366	0.001	1.259	34049	1.21		96.5	540	
33 N-ethylperfluorooctanesulfonamid										
584.00 > 419.00	4.378	4.378	0.0	1.003	55787	2.24		89.5	970	M
66 11-Chloroeicosafuoro-3-oxaundec										
631.00 > 451.00	4.445	4.444	0.001	1.177	766255	2.08		88.3	3196	
D 36 13C2 PFDaA										
615.00 > 570.00	4.586	4.585	0.001	1.323	465565	1.27		101	3662	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.586	4.585	0.001	1.000	850316	2.34	Target=5.23	93.6	774	
613.00 > 169.00	4.586	4.585	0.001	1.000	183559		4.63(2.62-7.85)	93.6	3869	
74 1H,1H,2H,2H-perfluorododecanesul										
627.00 > 607.00	4.610	4.610	0.0	1.124	42726	2.45		102	1510	
75 Perfluorododecanesulfonic acid (										
699.00 > 80.00	4.763	4.763	0.0	1.262	223973	2.17	Target=0.47	89.8	607	
699.00 > 99.00	4.763	4.763	0.0	1.262	470047		0.48(0.23-0.70)	89.8	4878	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.802	4.802	0.0	1.047	703958	2.28	Target=3.57	91.3	427	
663.00 > 169.00	4.802	4.802	0.0	1.047	206258		3.41(1.78-5.35)	91.3	1830	
D 43 13C2 PFTeDA										
715.00 > 670.00	4.997	4.998	-0.001	1.441	319736	1.22		97.6	4132	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.997	4.998	-0.001	1.000	139913	2.39	Target=1.07	95.5	3711	
713.00 > 219.00	4.997	4.998	-0.001	1.000	134967		1.04(0.54-1.61)	95.5	2155	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags

D 44 13C2 PFHxDA

815.00 > 770.00 5.372 5.361 0.011 1.549 381324 1.28 103 2975

45 Perfluorohexadecanoic acid

813.00 > 769.00 5.372 5.372 0.0 1.000 686432 2.57 Target=3.00 103 470

813.00 > 169.00 5.372 5.372 0.0 1.000 230217 2.98(1.50-4.49) 103 4012

46 Perfluorooctadecanoic acid

913.00 > 869.00 5.773 5.756 0.017 1.075 523242 2.30 Target=2.88 91.8 389

913.00 > 169.00 5.773 5.756 0.017 1.075 190222 2.75(1.44-4.32) 91.8 2021

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

PFAS32NCIC5_00011

Amount Added: 100.00

Units: uL

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL09.d

Injection Date: 22-Sep-2020 20:03:40

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#: 6

Worklist Smp#: 9

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

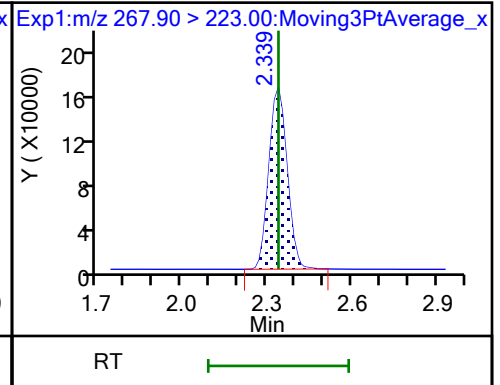
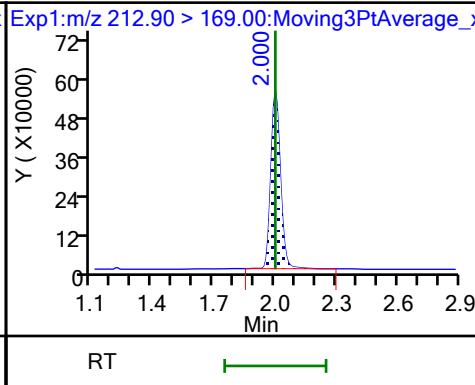
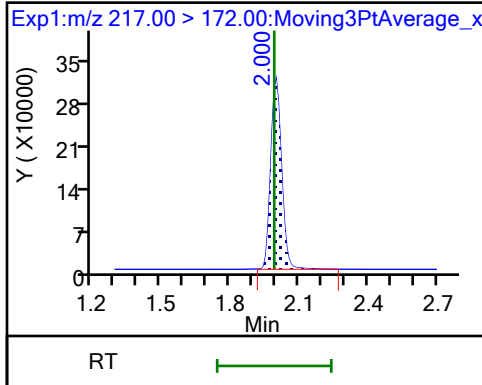
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid

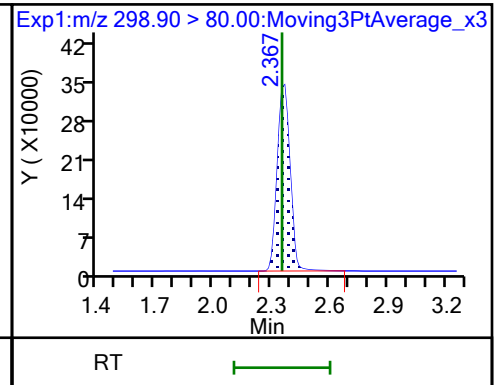
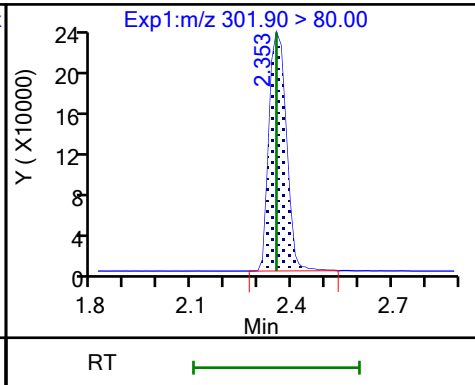
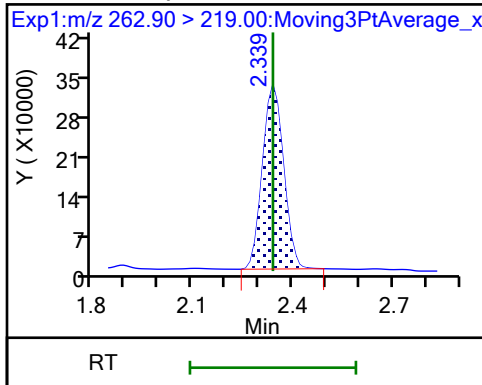
D 3 13C5 PFPeA



4 Perfluoropentanoic acid

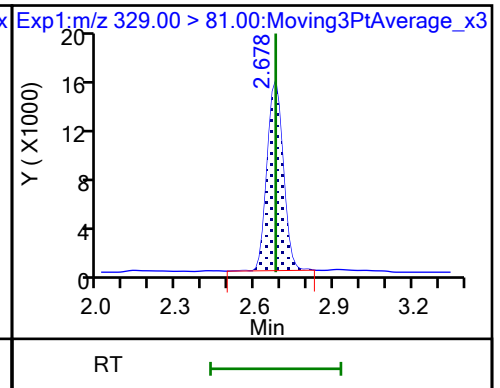
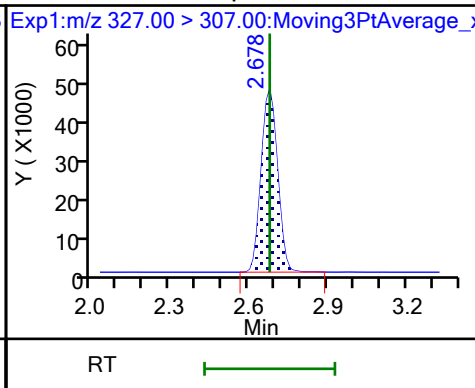
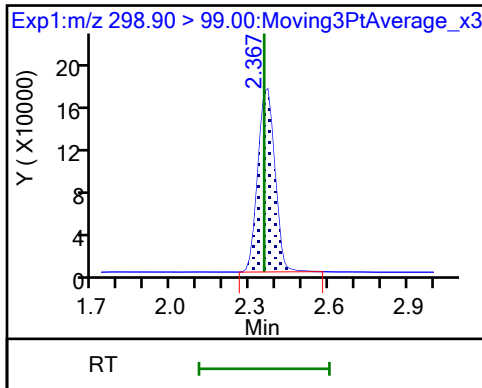
D 47 13C3 PFBS

5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

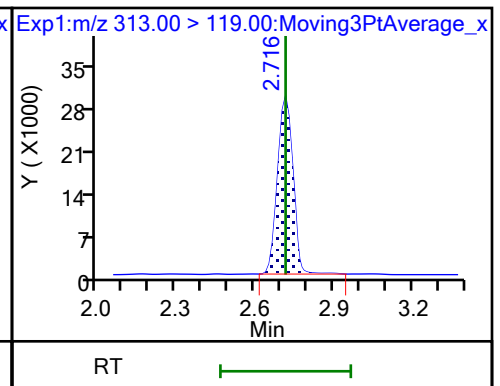
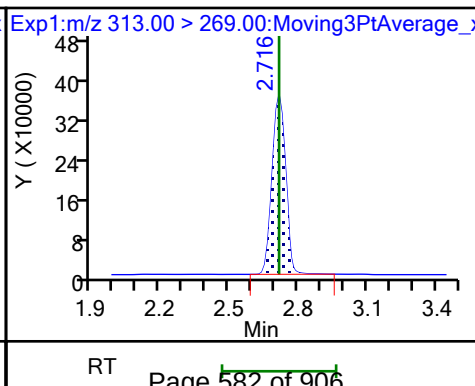
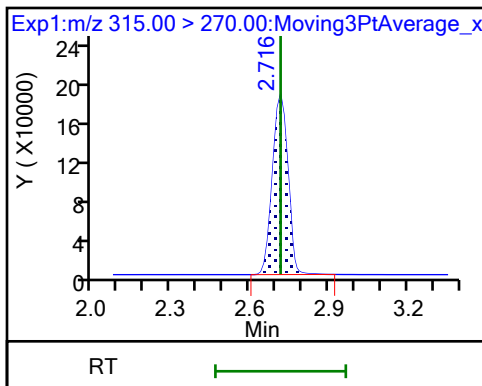
61 1H,1H,2H,2H-perfluorohexanesulfo D 60 M2-4:2 FTS

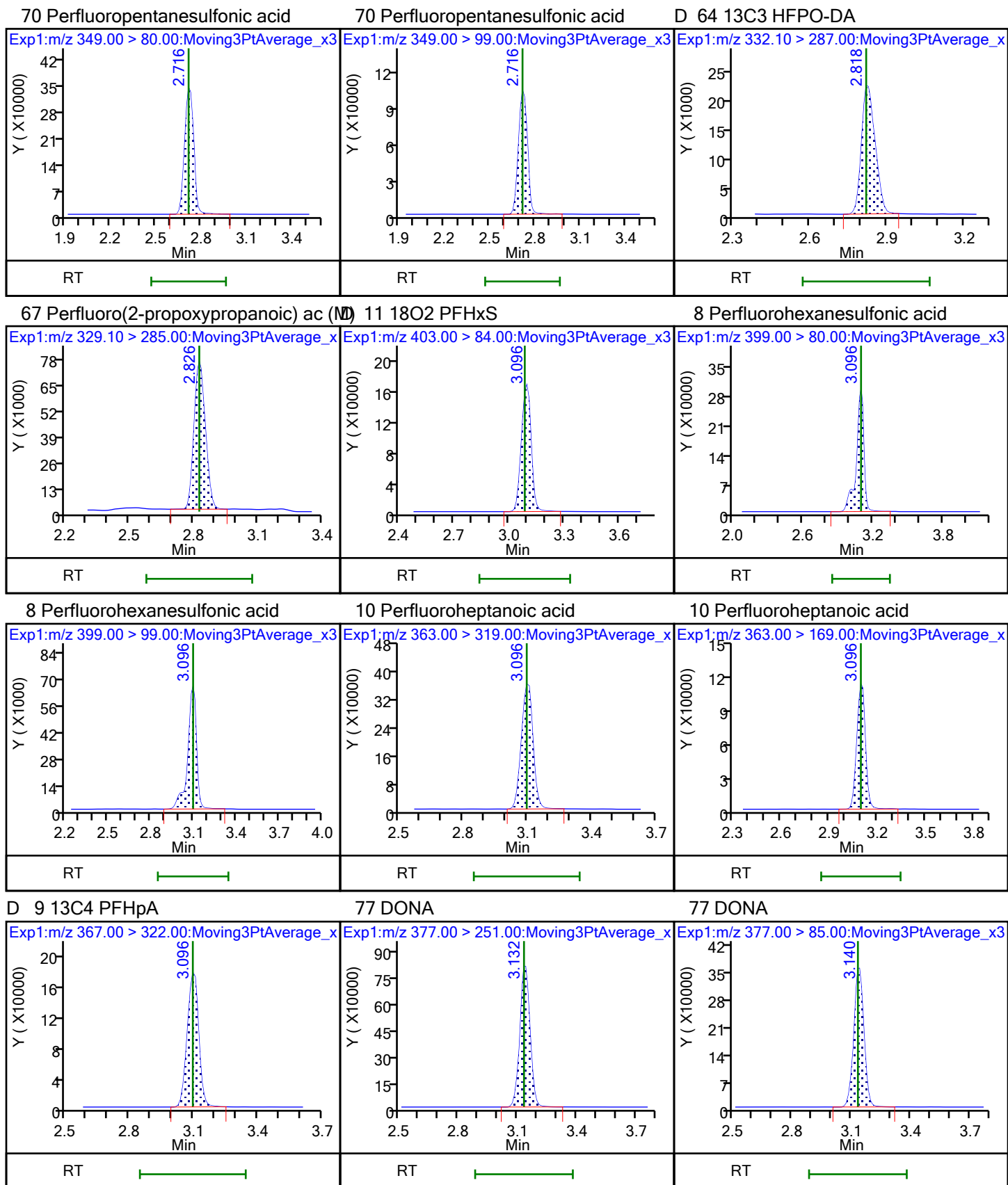


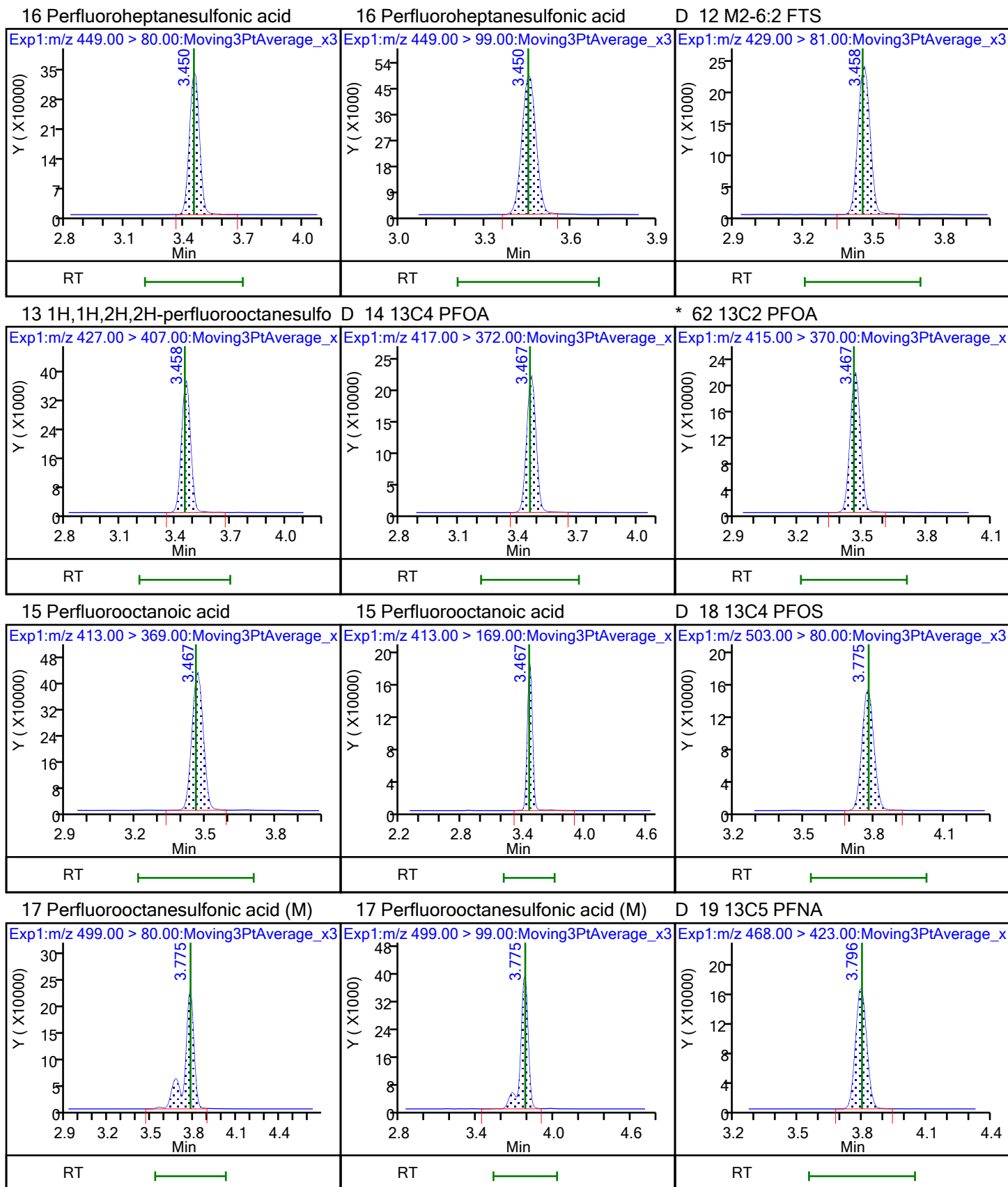
D 7 13C2 PFHxA

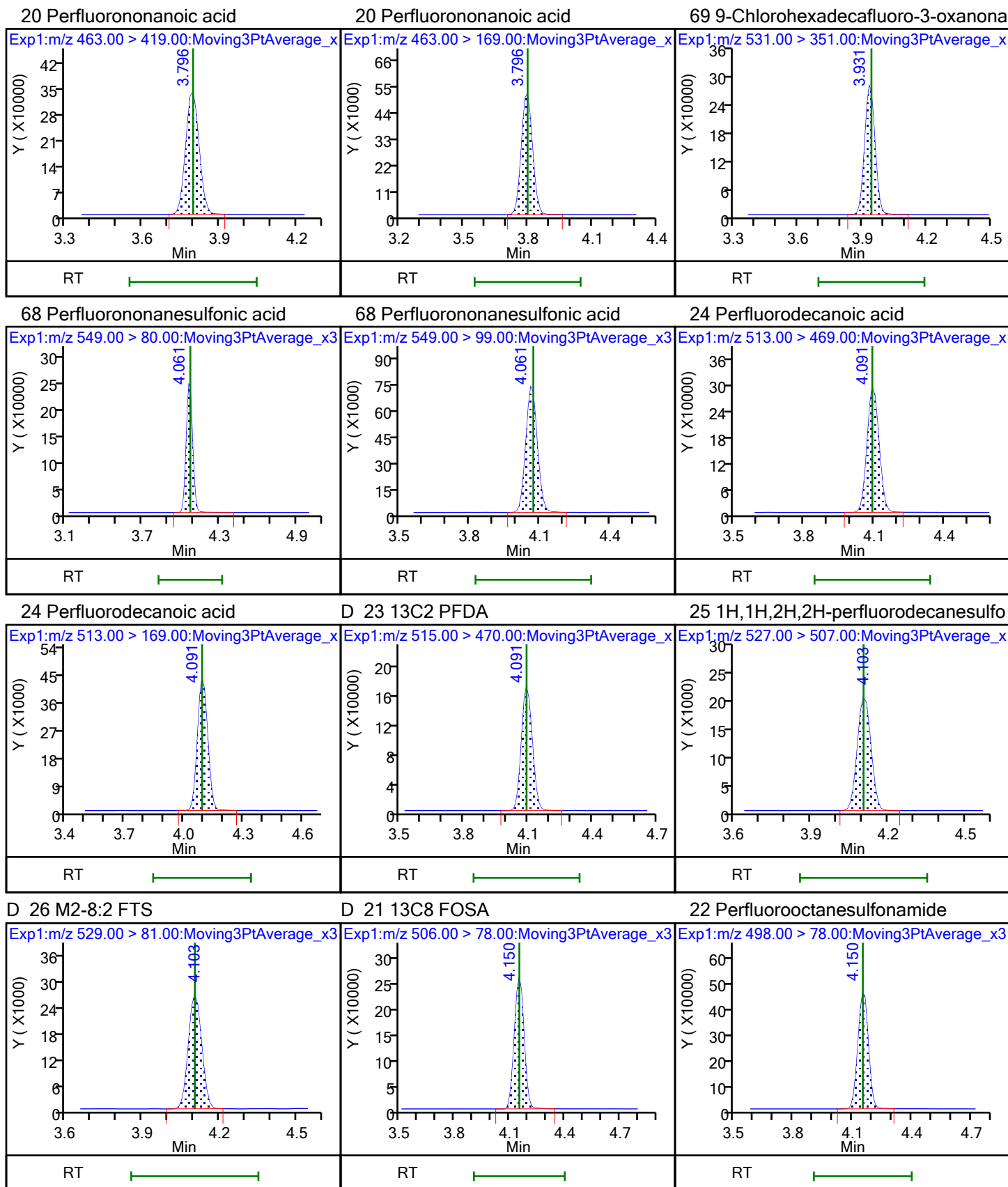
6 Perfluorohexanoic acid

6 Perfluorohexanoic acid





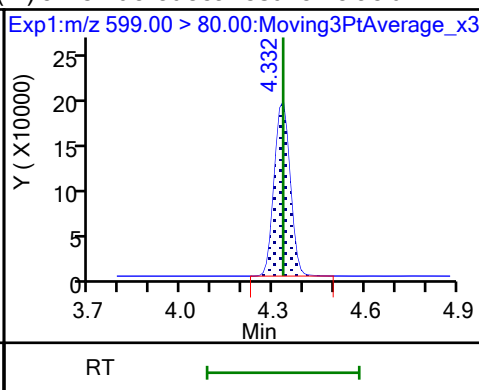
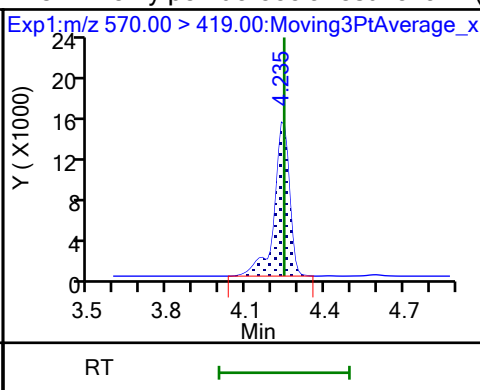
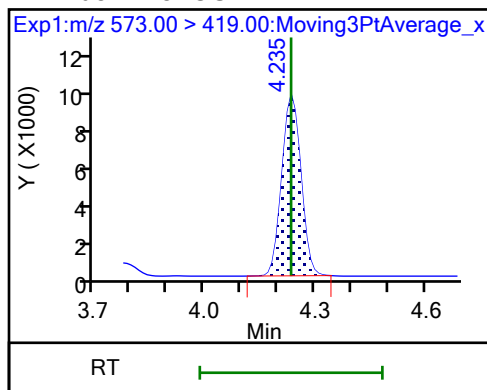




D 27 d3-NMeFOSAA

28 N-methylperfluorooctanesulfonami (M₂)

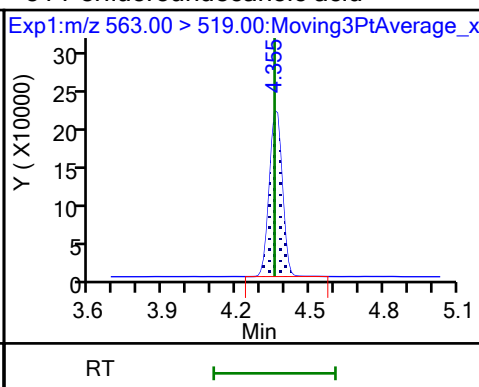
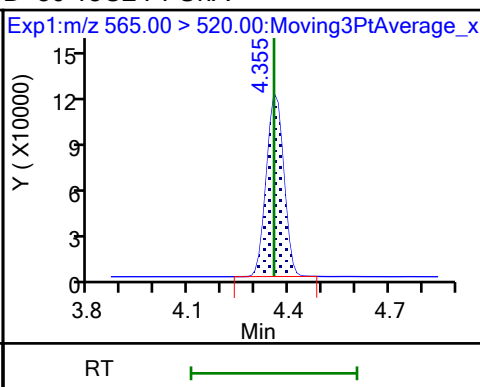
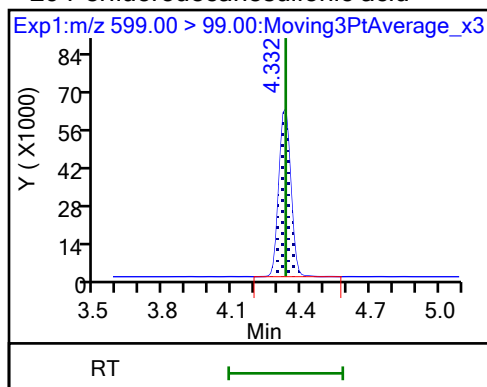
29 Perfluorodecanesulfonic acid



29 Perfluorodecanesulfonic acid

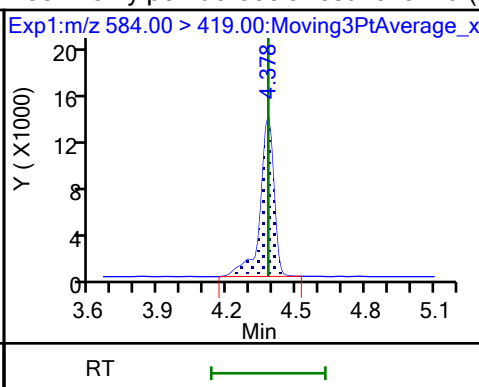
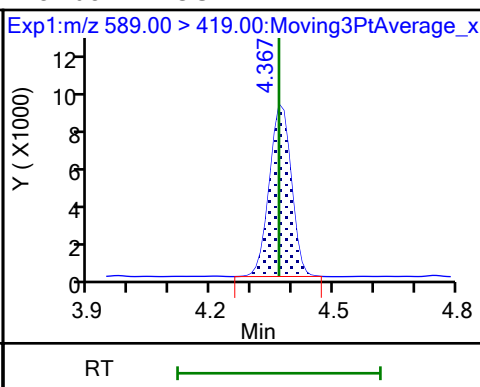
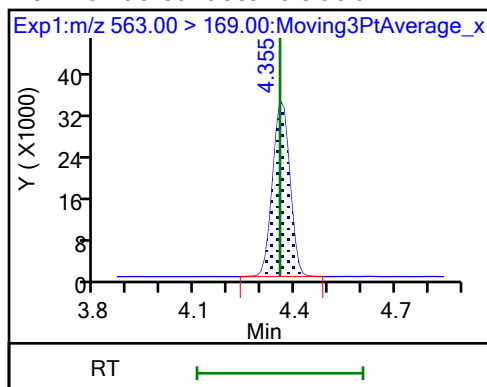
D 30 13C2 PFUnA

31 Perfluoroundecanoic acid



31 Perfluoroundecanoic acid

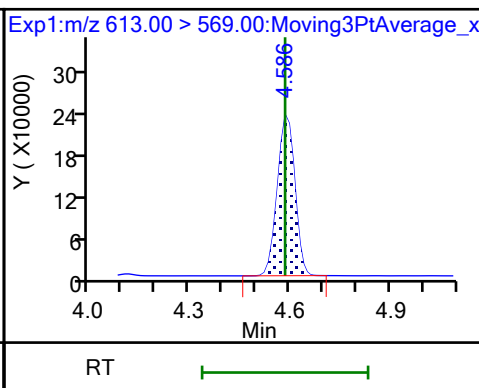
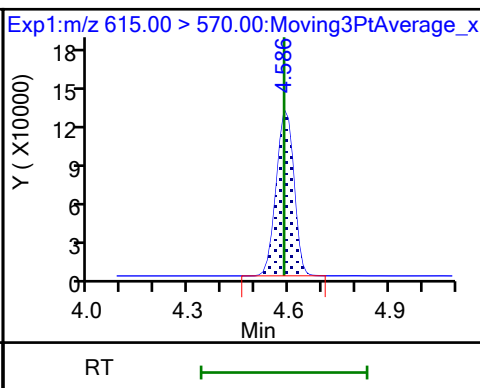
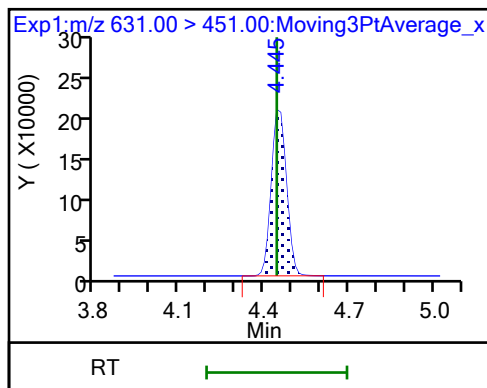
D 32 d5-NEtFOSAA

33 N-ethylperfluorooctanesulfonamid (M₂)

66 11-Chloroeicosafluoro-3-oxaundec

D 36 13C2 PFDoA

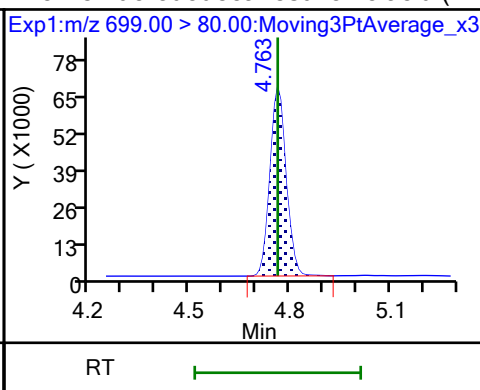
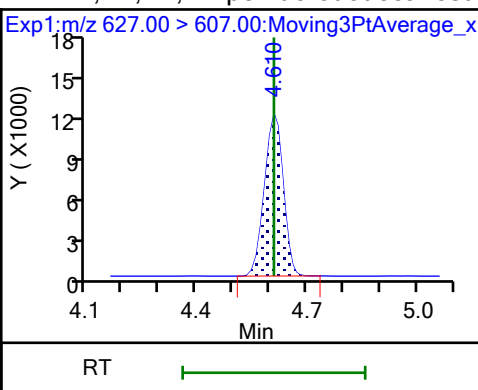
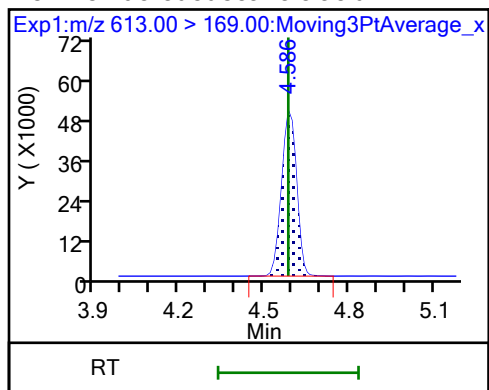
37 Perfluorododecanoic acid



37 Perfluorododecanoic acid

74 1H,1H,2H,2H-perfluorododecanesul

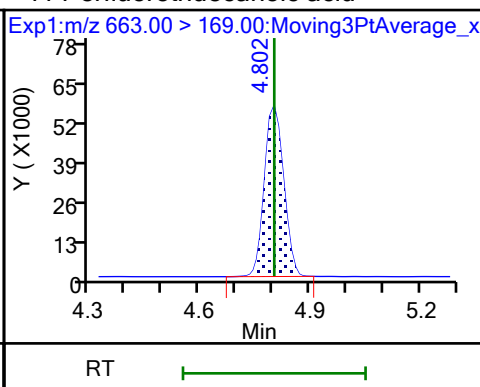
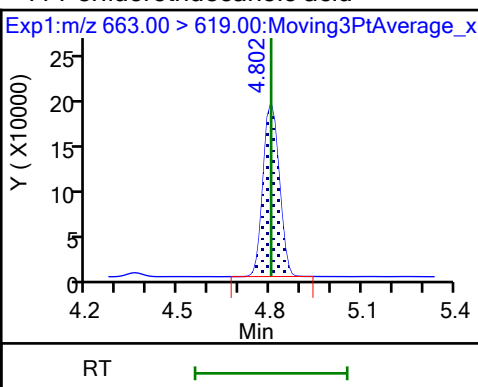
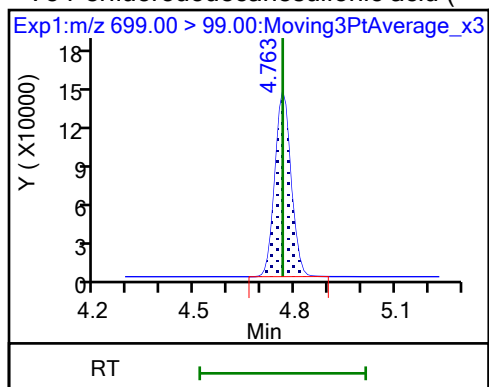
75 Perfluorododecanesulfonic acid (



75 Perfluorododecanesulfonic acid (

41 Perfluorotridecanoic acid

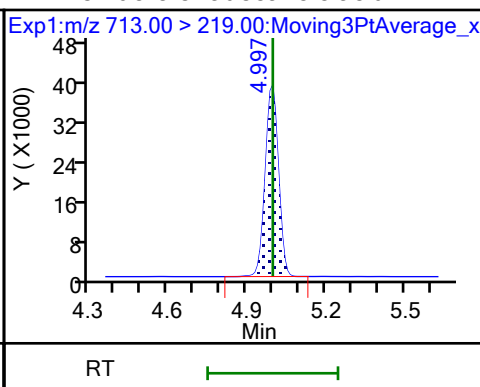
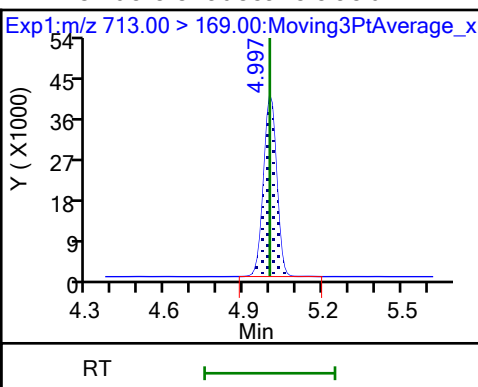
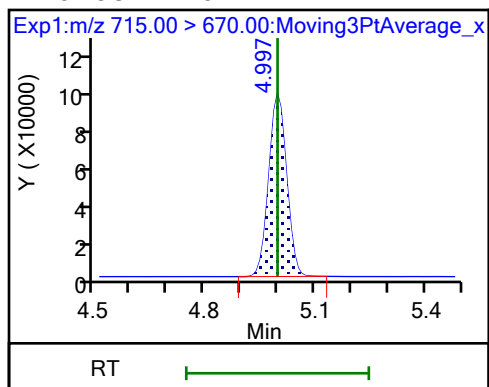
41 Perfluorotridecanoic acid



D 43 13C2 PFTeDA

42 Perfluorotetradecanoic acid

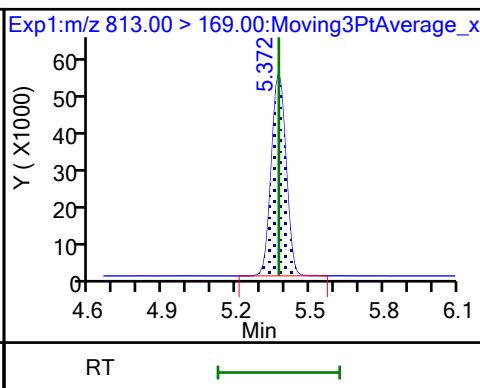
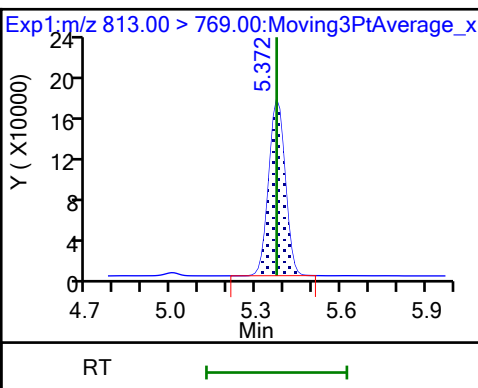
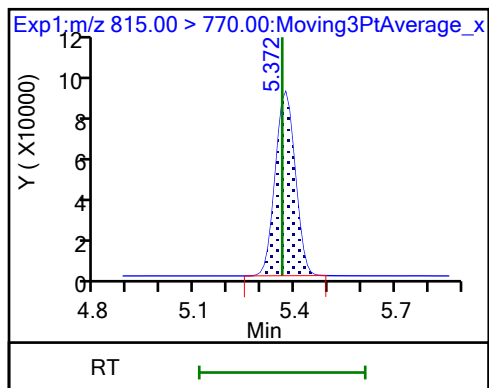
42 Perfluorotetradecanoic acid



D 44 13C2 PFHxDA

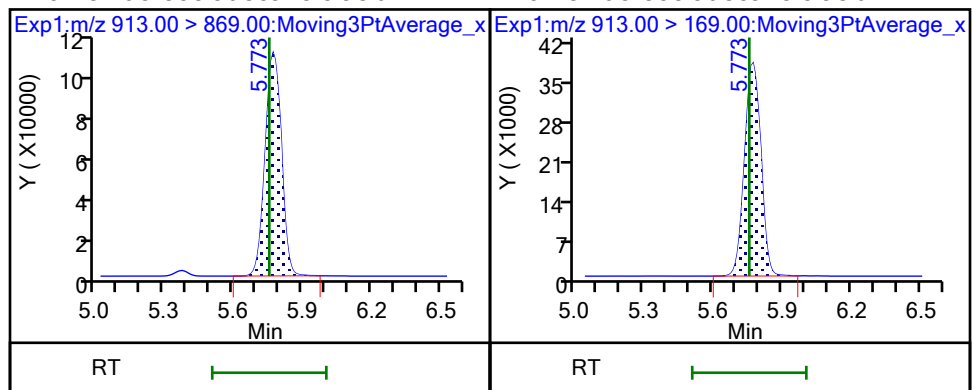
45 Perfluorohexadecanoic acid

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid

46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

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Injection Date: 22-Sep-2020 20:03:40

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

6

Worklist Smp#: 9

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

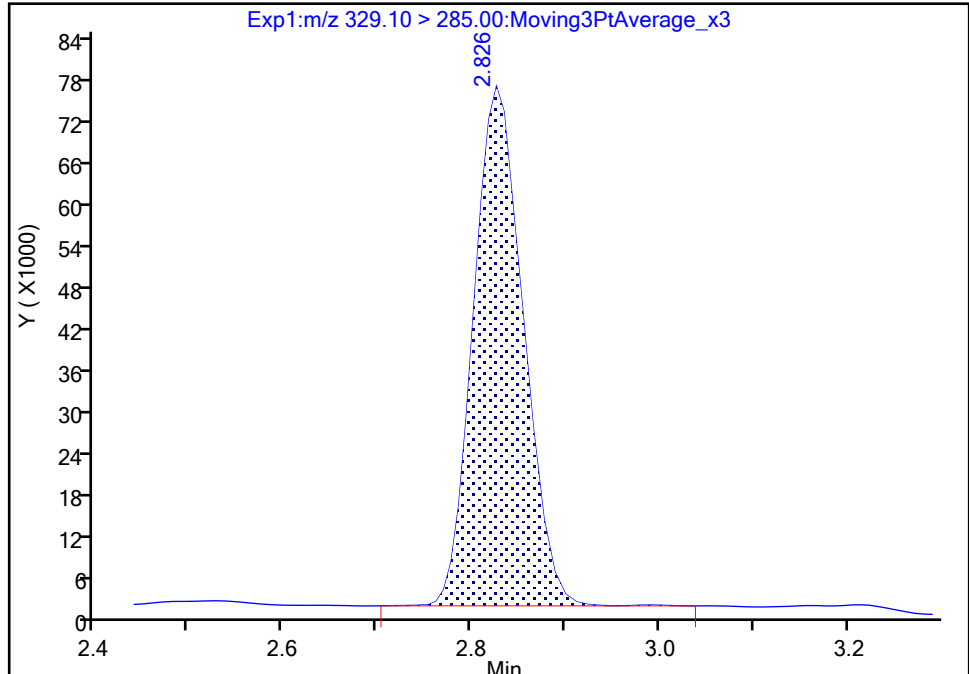
Detector: EXP1

67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

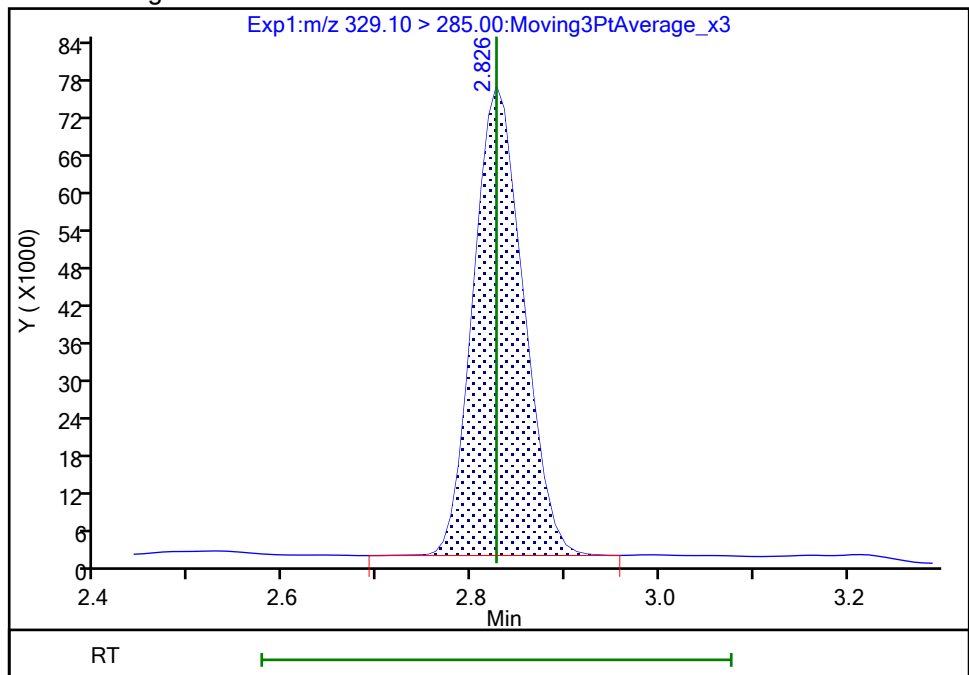
RT: 2.83
Area: 276144
Amount: 1.958305
Amount Units: ng/ml

Processing Integration Results



RT: 2.83
Area: 275773
Amount: 2.026380
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:49:30

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL09.d

Injection Date: 22-Sep-2020 20:03:40

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

6

Worklist Smp#: 9

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

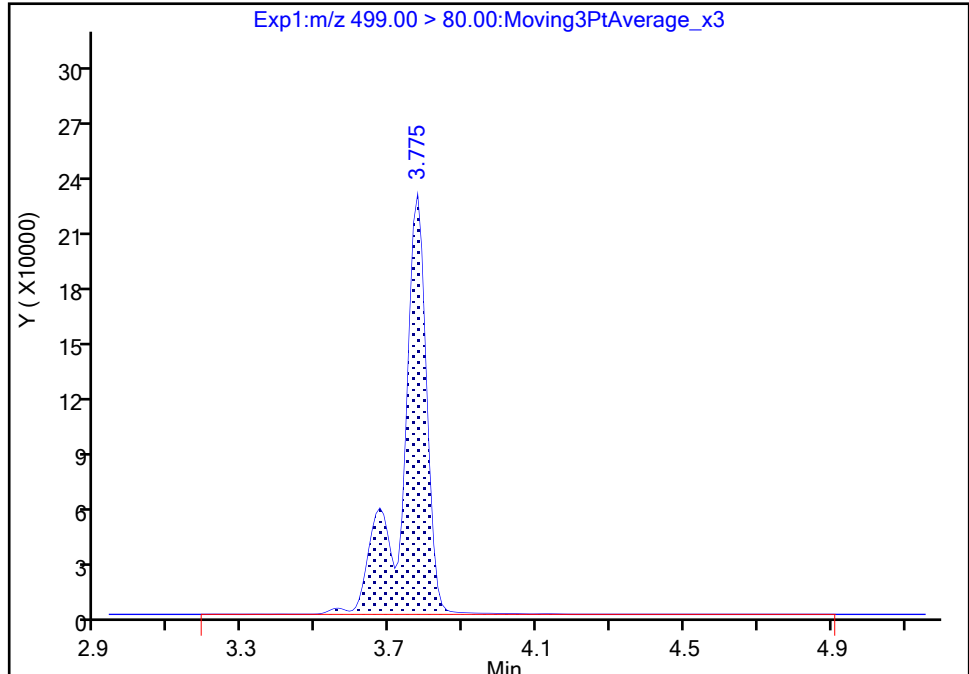
EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

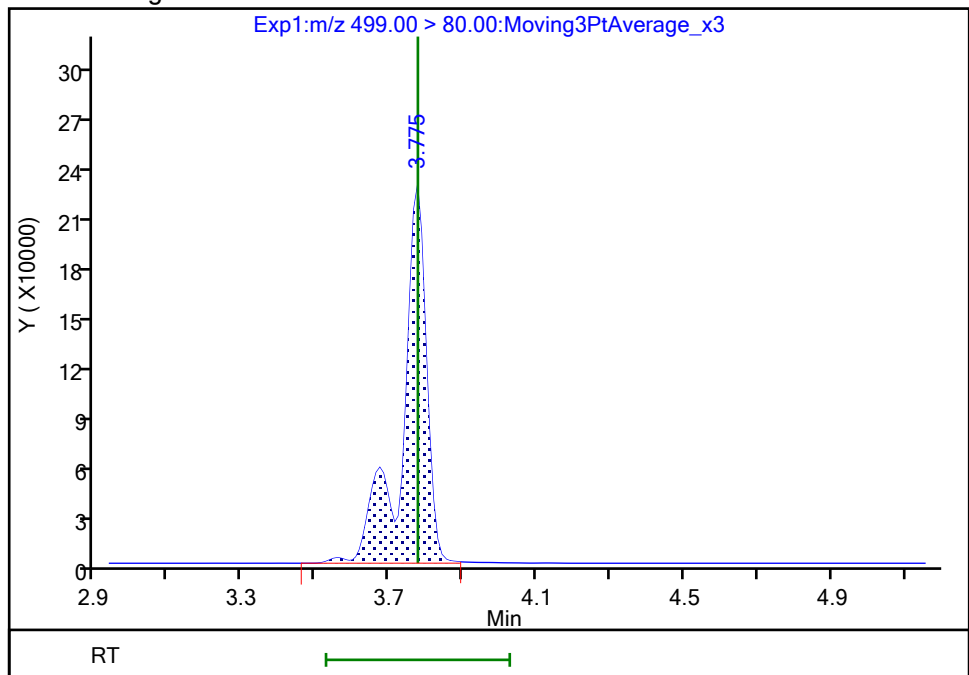
RT: 3.78
Area: 1061660
Amount: 2.182170
Amount Units: ng/ml

Processing Integration Results



RT: 3.78
Area: 1055393
Amount: 2.173070
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:43:58

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL09.d

Injection Date: 22-Sep-2020 20:03:40

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#: 6

Worklist Smp#: 9

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

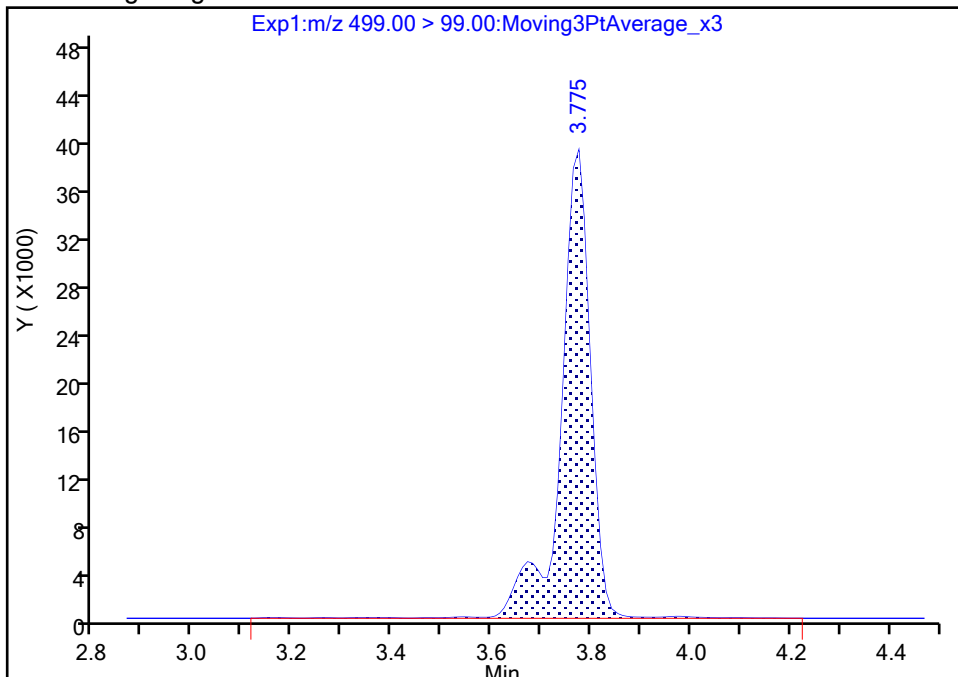
Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

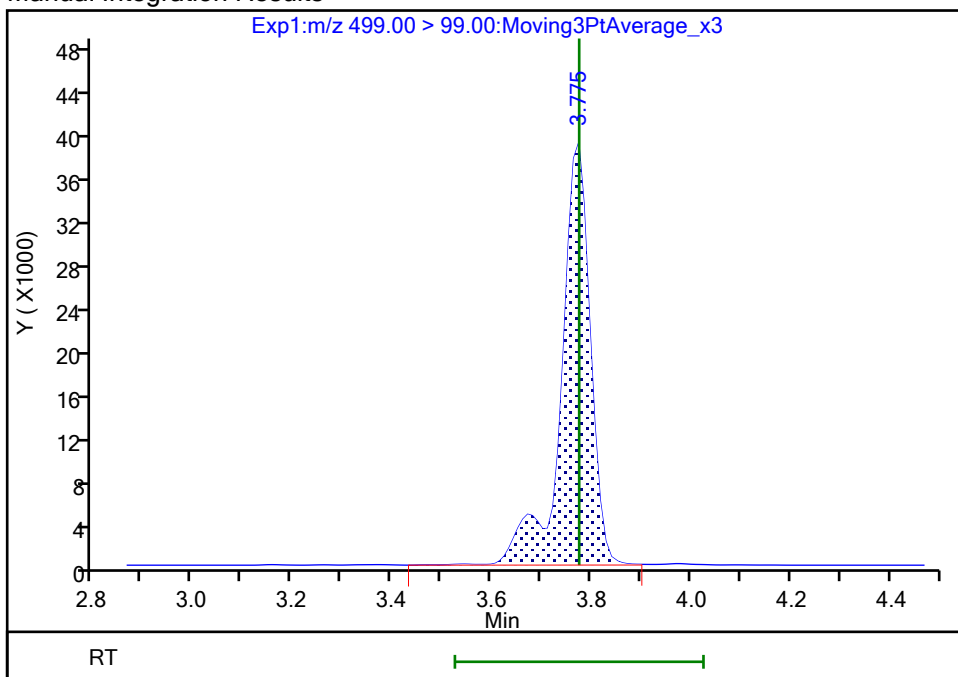
RT: 3.78
Area: 162495
Amount: 2.182170
Amount Units: ng/ml

Processing Integration Results



RT: 3.78
Area: 160829
Amount: 2.173070
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:44:00

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL09.d

Injection Date: 22-Sep-2020 20:03:40

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#: 6

Worklist Smp#: 9

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

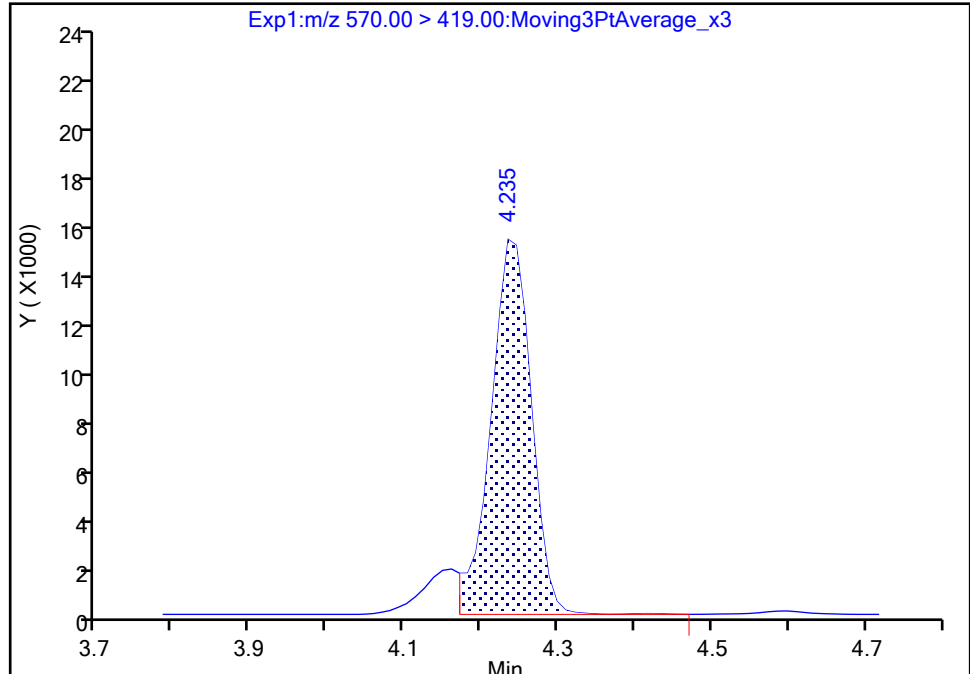
Detector: EXP1

28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

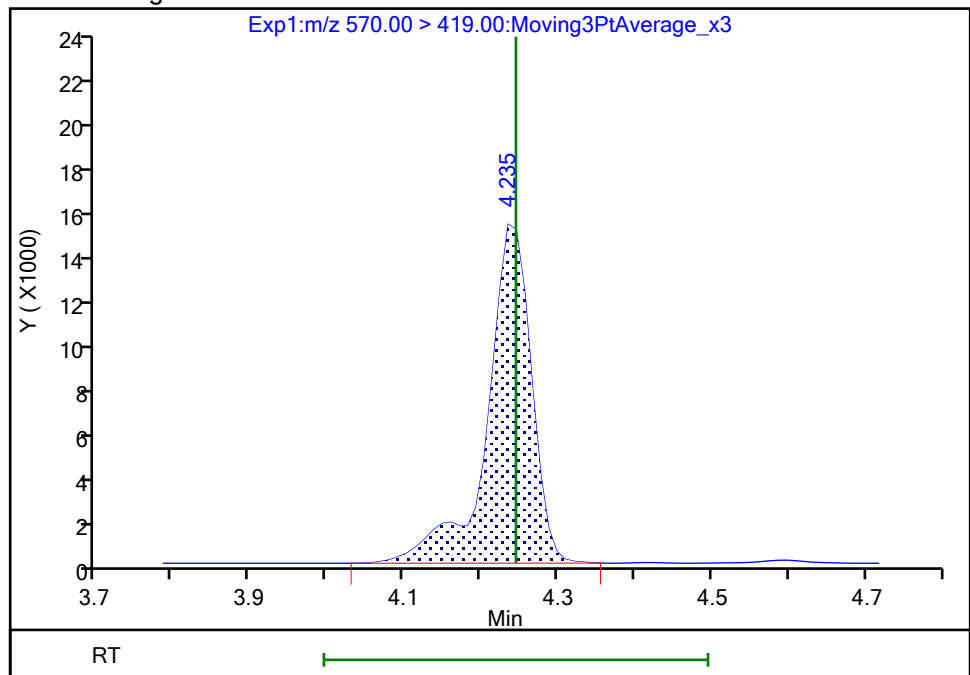
RT: 4.24
Area: 54107
Amount: 2.238450
Amount Units: ng/ml

Processing Integration Results



RT: 4.24
Area: 59827
Amount: 2.401618
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:44:14

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL09.d

Injection Date: 22-Sep-2020 20:03:40

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

6

Worklist Smp#: 9

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

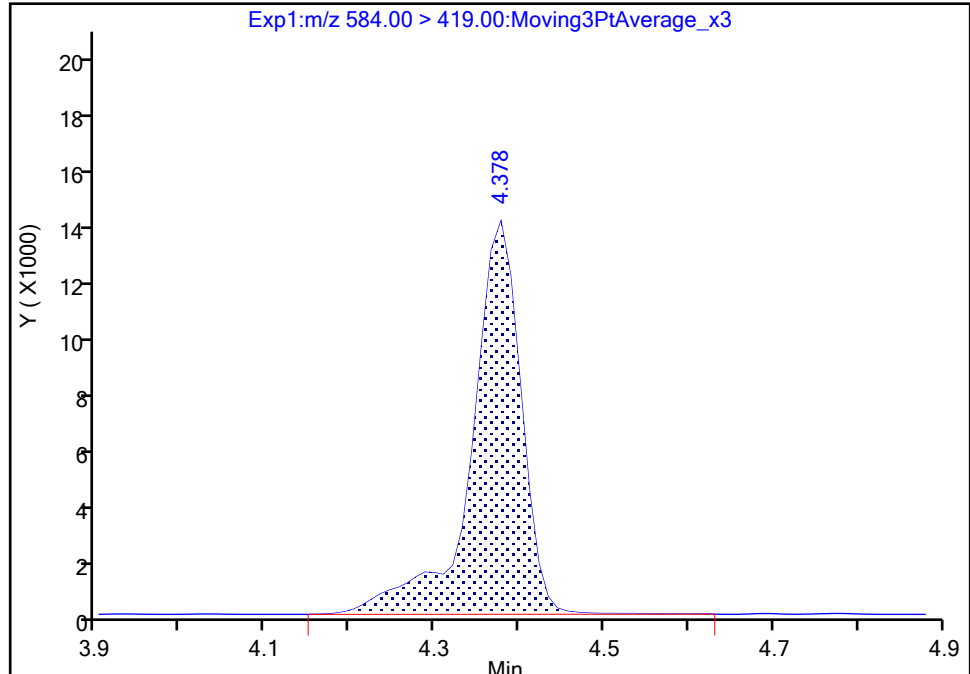
Detector: EXP1

33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

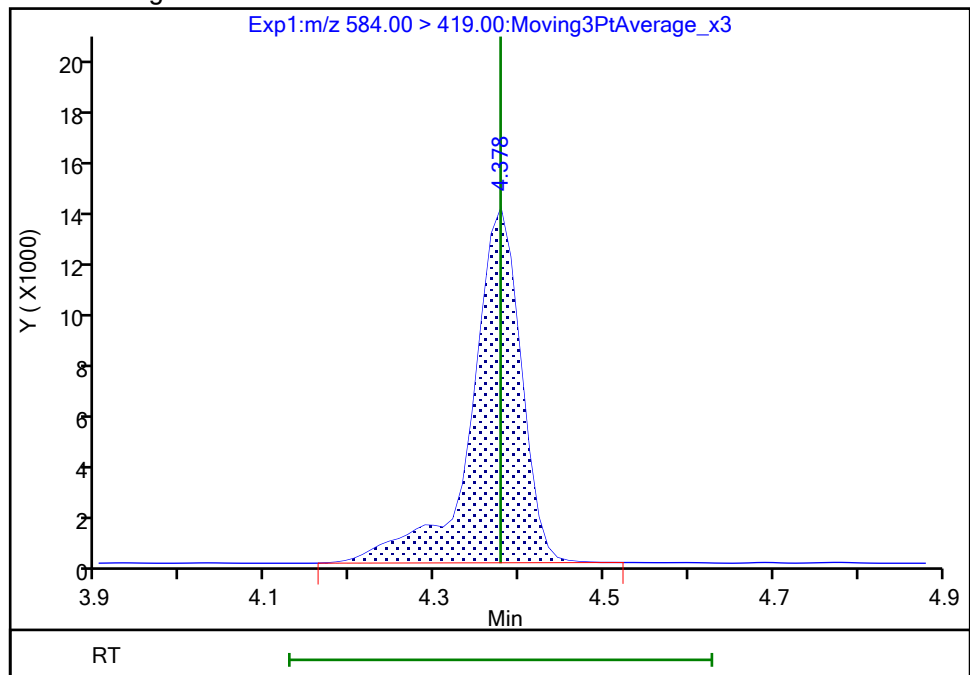
RT: 4.38
Area: 56171
Amount: 2.248187
Amount Units: ng/ml

Processing Integration Results



RT: 4.38
Area: 55787
Amount: 2.237037
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:44:21

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 22-Sep-2020 20:11:57 ALS Bottle#: 7 Worklist Smp#: 10
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: IC
 Misc. Info.: 200-0042904-010 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Sublist: chrom-PFC_LC812*sub3
 Method: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 23-Sep-2020 10:27:14 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1050

First Level Reviewer: chirgwinb

Date: 23-Sep-2020 09:46:32

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 1 13C4 PFBA										
217.00 > 172.00	2.000	1.990	0.010	0.577	1089016	1.20		95.6	6794	
2 Perfluorobutanoic acid										
212.90 > 169.00	2.000	2.000	0.0	1.000	7000037	8.60		86.0	1120	
D 3 13C5 PFPeA										
267.90 > 223.00	2.339	2.339	0.0	0.675	735752	1.13		90.1	3430	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.339	2.339	0.0	1.000	5728704	9.22		92.2	323	
D 47 13C3 PFBS										
301.90 > 80.00	2.367	2.353	0.014	0.683	917546	1.15		99.2	285391	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.367	2.353	0.014	1.000	6287596	7.99	Target=1.99	90.4	21872	
298.90 > 99.00	2.367	2.353	0.014	1.000	3124977		2.01(1.00-2.99)	90.4	3953	
61 1H,1H,2H,2H-perfluorohexanesulfo										
327.00 > 307.00	2.678	2.678	0.0	1.000	797633	9.18		98.3	7495	
D 60 M2-4:2 FTS										
329.00 > 81.00	2.678	2.678	0.0	0.772	62748	1.05		90.0	185	
D 7 13C2 PFHxA										
315.00 > 270.00	2.716	2.716	0.0	0.783	783524	1.16		93.2	3584	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.716	2.716	0.0	1.000	5879765	9.32	Target=11.58	93.2	2632	
313.00 > 119.00	2.716	2.716	0.0	1.000	484535		12.13(5.79-17.37)	93.2	1308	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.716	2.716	0.0	0.877	5863855	8.86	Target=3.36	94.5	30534	
349.00 > 99.00	2.716	2.716	0.0	0.877	1685305		3.48(1.68-5.05)	94.5	3086	
D 64 13C3 HFPO-DA										M
332.10 > 287.00	2.826	2.818	0.008	0.815	70282	1.12		89.7	985	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
67 Perfluoro(2-propoxypropanoic) ac										
329.10 > 285.00	2.826	2.826	0.0	1.000	1133832	9.48		94.8	267	
D 11 18O2 PFHxS										
403.00 > 84.00	3.096	3.084	0.012	0.893	661019	1.16		98.0	1326	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.096	3.096	0.0	1.000	5165337	8.37	Target=4.59	91.9	40442	
399.00 > 99.00	3.096	3.096	0.0	1.000	1124976		4.59(2.29-6.88)	91.9	2521	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.107	3.096	0.011	1.004	5075336	8.56	Target=3.29	85.6	1950	
363.00 > 169.00	3.096	3.096	0.0	1.000	1583258		3.21(1.65-4.94)	85.6	3232	
D 9 13C4 PFHpA										
367.00 > 322.00	3.096	3.096	0.0	0.893	739938	1.21		96.8	4032	
77 DONA										
377.00 > 251.00	3.139	3.132	0.007	0.829	11374670	8.33	Target=2.40	88.4	12962	
377.00 > 85.00	3.139	3.132	0.007	0.829	4924089		2.31(1.20-3.60)	88.4	6463	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.450	3.450	0.0	0.911	4550478	8.86	Target=6.94	93.1	12180	
449.00 > 99.00	3.450	3.450	0.0	0.911	695711		6.54(3.47-10.41)	93.1	2333	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.458	3.450	0.008	0.998	81966	1.07		90.5	706	
13 1H,1H,2H,2H-perfluorooctanesulfo										
427.00 > 407.00	3.458	3.450	0.008	1.000	490337	8.90		93.9	1316	
D 14 13C4 PFOA										
417.00 > 372.00	3.467	3.458	0.009	1.000	719638	1.15		92.0	3362	
* 62 13C2 PFOA										
415.00 > 370.00	3.467	3.458	0.009		794905	1.25			4618	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.467	3.458	0.009	1.000	5418021	9.12	Target=2.26	91.2	1871	
413.00 > 169.00	3.467	3.458	0.009	1.000	2308733		2.35(1.13-3.38)	91.2	3376	
D 18 13C4 PFOS										
503.00 > 80.00	3.785	3.776	0.009	1.092	529677	1.13		95.0	1290	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.785	3.776	0.009	1.000	4001517	8.31	Target=6.66	89.5	1521	M
499.00 > 99.00	3.785	3.776	0.009	1.000	606003		6.60(3.33-9.99)	89.5	1931	M
D 19 13C5 PFNA										
468.00 > 423.00	3.807	3.797	0.010	1.098	597837	1.13		90.7	5525	
20 Perfluorononanoic acid										
463.00 > 419.00	3.807	3.797	0.010	1.000	4592773	9.43	Target=6.07	94.3	1440	
463.00 > 169.00	3.807	3.797	0.010	1.000	749675		6.13(3.03-9.10)	94.3	5852	
69 9-Chlorohexadecafluoro-3-oxanona										
531.00 > 351.00	3.940	3.941	-0.001	1.041	3507025	8.27		88.8	14797	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.071	4.072	-0.001	1.075	3398939	8.93	Target=3.49	93.0	3368	
549.00 > 99.00	4.071	4.072	-0.001	1.075	939574		3.62(1.75-5.24)	93.0	4813	
24 Perfluorodecanoic acid										
513.00 > 469.00	4.103	4.092	0.011	1.000	4346718	9.73	Target=6.79	97.3	4302	
513.00 > 169.00	4.103	4.092	0.011	1.000	602640		7.21(3.39-10.18)	97.3	4020	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 23 13C2 PFDA										
515.00 > 470.00	4.103	4.092	0.011	1.183	564176	1.12		89.2	3760	
25 1H,1H,2H,2H-perfluorodecanesulfo										
527.00 > 507.00	4.114	4.103	0.011	1.000	285233	9.14		95.4	3749	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.114	4.103	0.011	1.187	94366	1.05		87.7	1085	
D 21 13C8 FOSA										
506.00 > 78.00	4.162	4.151	0.011	1.200	999304	1.23		98.1	4093	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.162	4.151	0.011	1.000	6644752	8.89		88.9	3454	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.246	4.235	0.011	1.225	33892	1.18		94.1	28.8	
28 N-methylperfluorooctanesulfonami										
570.00 > 419.00	4.246	4.245	0.001	1.000	245746	9.60		96.0	1754	M
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.332	4.332	0.0	1.145	2628599	8.25	Target=3.11	85.6	6414	
599.00 > 99.00	4.332	4.332	0.0	1.145	899338		2.92(1.55-4.66)	85.6	6559	
D 30 13C2 PFUnA										
565.00 > 520.00	4.367	4.355	0.012	1.259	449002	1.18		94.0	5342	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.367	4.355	0.012	1.000	3251975	9.18	Target=6.33	91.8	3329	
563.00 > 169.00	4.367	4.355	0.012	1.000	494661		6.57(3.17-9.50)	91.8	4551	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.378	4.366	0.012	1.263	33401	1.08		86.3	457	
33 N-ethylperfluorooctanesulfonamid										
584.00 > 419.00	4.378	4.378	0.0	1.000	218696	8.94		89.4	2112	M
66 11-Chloroeicosafuoro-3-oxaundec										
631.00 > 451.00	4.458	4.444	0.014	1.178	3122376	8.54		90.6	8141	
D 36 13C2 PFDaA										
615.00 > 570.00	4.598	4.585	0.013	1.326	467874	1.16		92.7	3983	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.598	4.585	0.013	1.000	3229716	8.85	Target=5.23	88.5	2416	
613.00 > 169.00	4.598	4.585	0.013	1.000	627428		5.15(2.62-7.85)	88.5	7300	
74 1H,1H,2H,2H-perfluorododecanesul										
627.00 > 607.00	4.620	4.610	0.010	1.123	161243	9.30		96.5	2396	
75 Perfluorododecanesulfonic acid (										
699.00 > 80.00	4.772	4.763	0.009	1.261	898184	8.79	Target=0.47	90.8	2376	
699.00 > 99.00	4.772	4.763	0.009	1.261	1976646		0.45(0.23-0.70)	90.8	10897	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.802	4.802	0.0	1.044	2651985	8.55	Target=3.57	85.5	1282	
663.00 > 169.00	4.802	4.802	0.0	1.044	814251		3.26(1.78-5.35)	85.5	5655	
D 43 13C2 PFTeDA										
715.00 > 670.00	4.997	4.998	-0.001	1.441	331810	1.15		92.3	4213	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.997	4.998	-0.001	1.000	563548	9.27	Target=1.07	92.7	7719	
713.00 > 219.00	4.997	4.998	-0.001	1.000	540778		1.04(0.54-1.61)	92.7	5844	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 44 13C2 PFHxDA										
815.00 > 770.00	5.372	5.361	0.011	1.549	388694	1.19		95.4	4000	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.372	5.372	0.0	1.000	2576342	9.51	Target=3.00	95.1	1418	
813.00 > 169.00	5.372	5.372	0.0	1.000	847928		3.04(1.50-4.49)	95.1	8646	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.764	5.756	0.008	1.073	2004833	8.63	Target=2.88	86.3	1241	
913.00 > 169.00	5.755	5.756	-0.001	1.071	712740		2.81(1.44-4.32)	86.3	2715	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

PFAS32NCIC6_00005

Amount Added: 100.00

Units: uL

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d

Injection Date: 22-Sep-2020 20:11:57

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#: 7

Worklist Smp#: 10

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

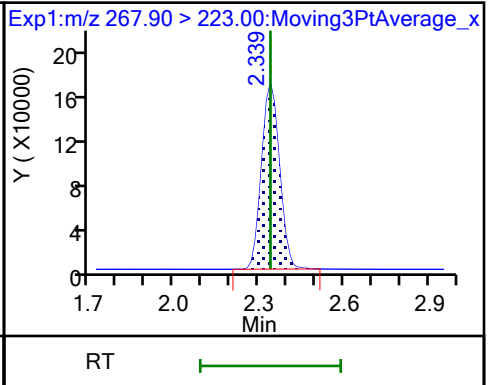
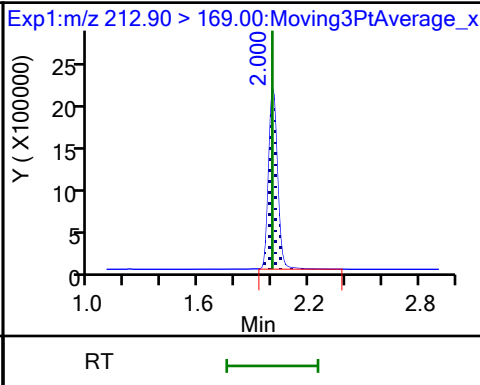
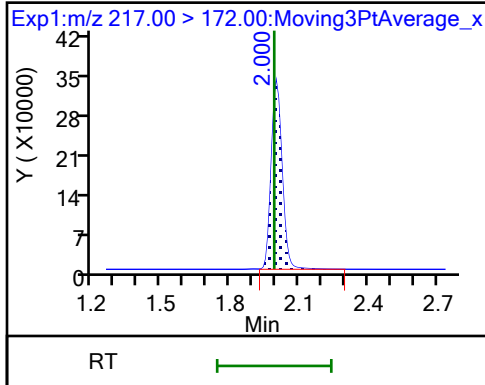
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid

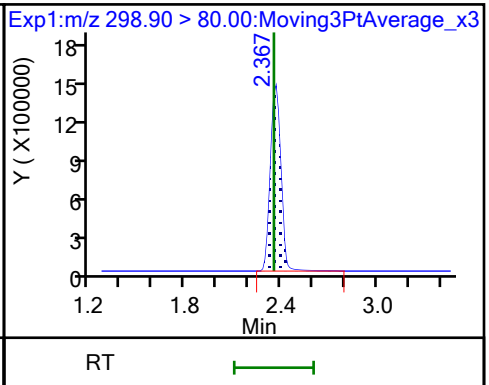
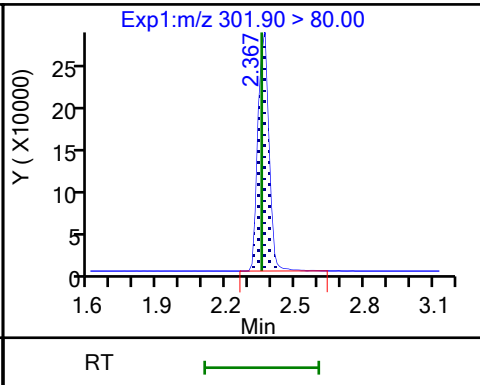
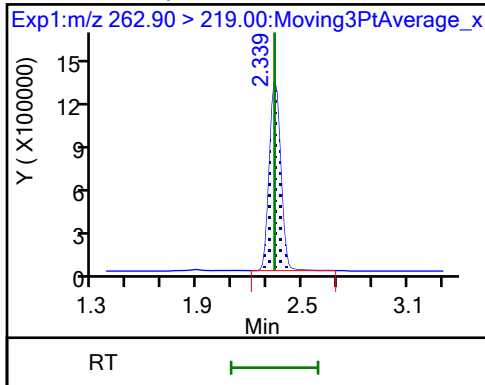
D 3 13C5 PFPeA



4 Perfluoropentanoic acid

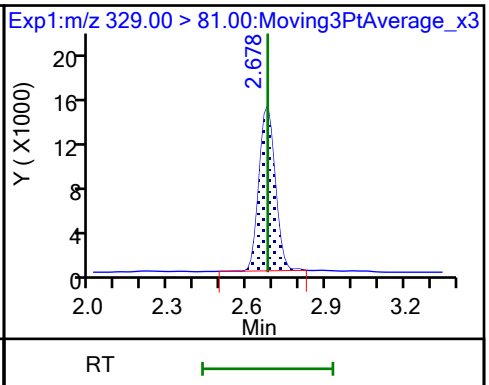
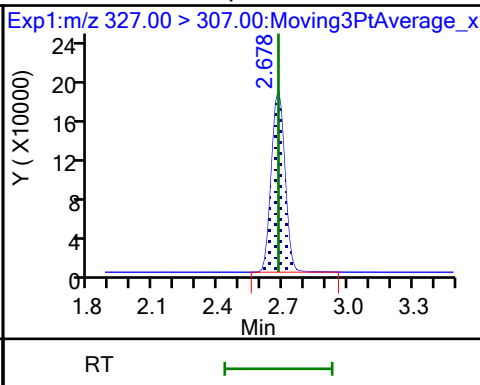
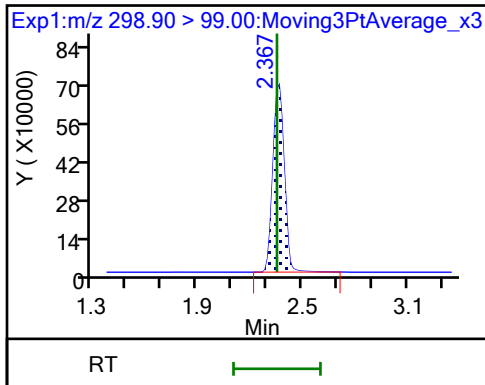
D 47 13C3 PFBS

5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

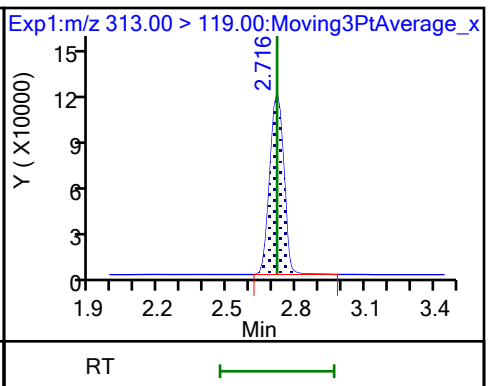
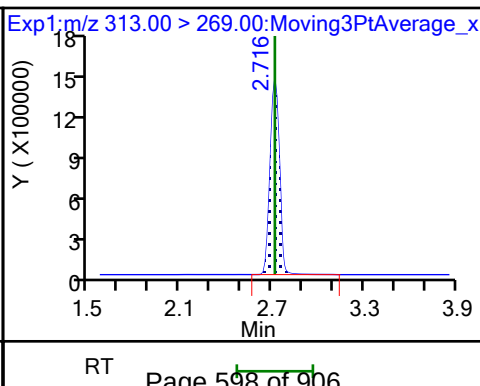
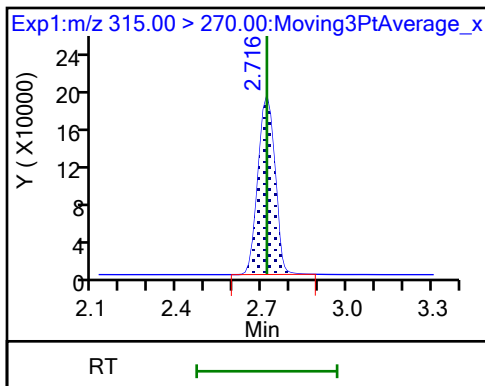
61 1H,1H,2H,2H-perfluorohexanesulfo D 60 M2-4:2 FTS

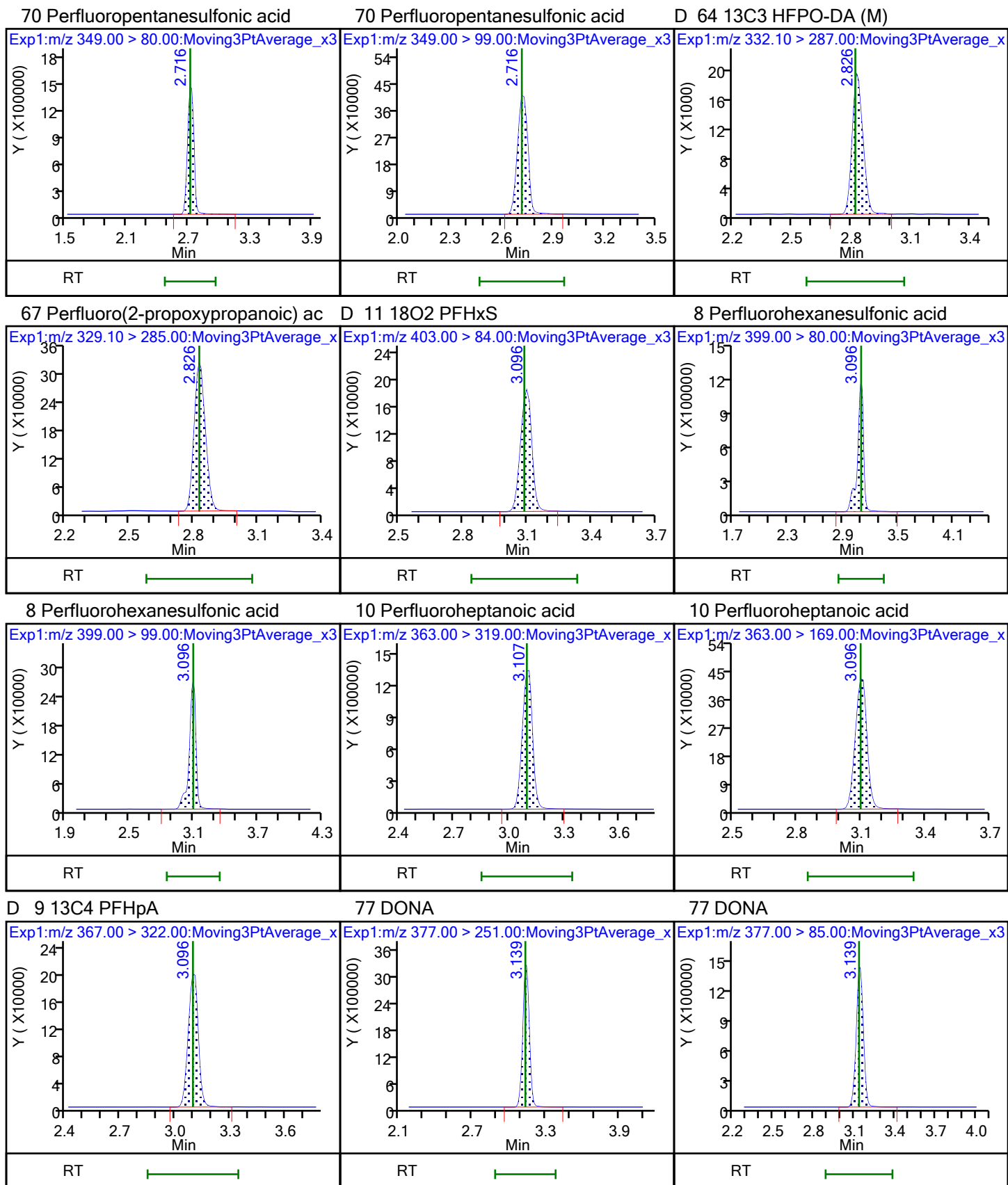


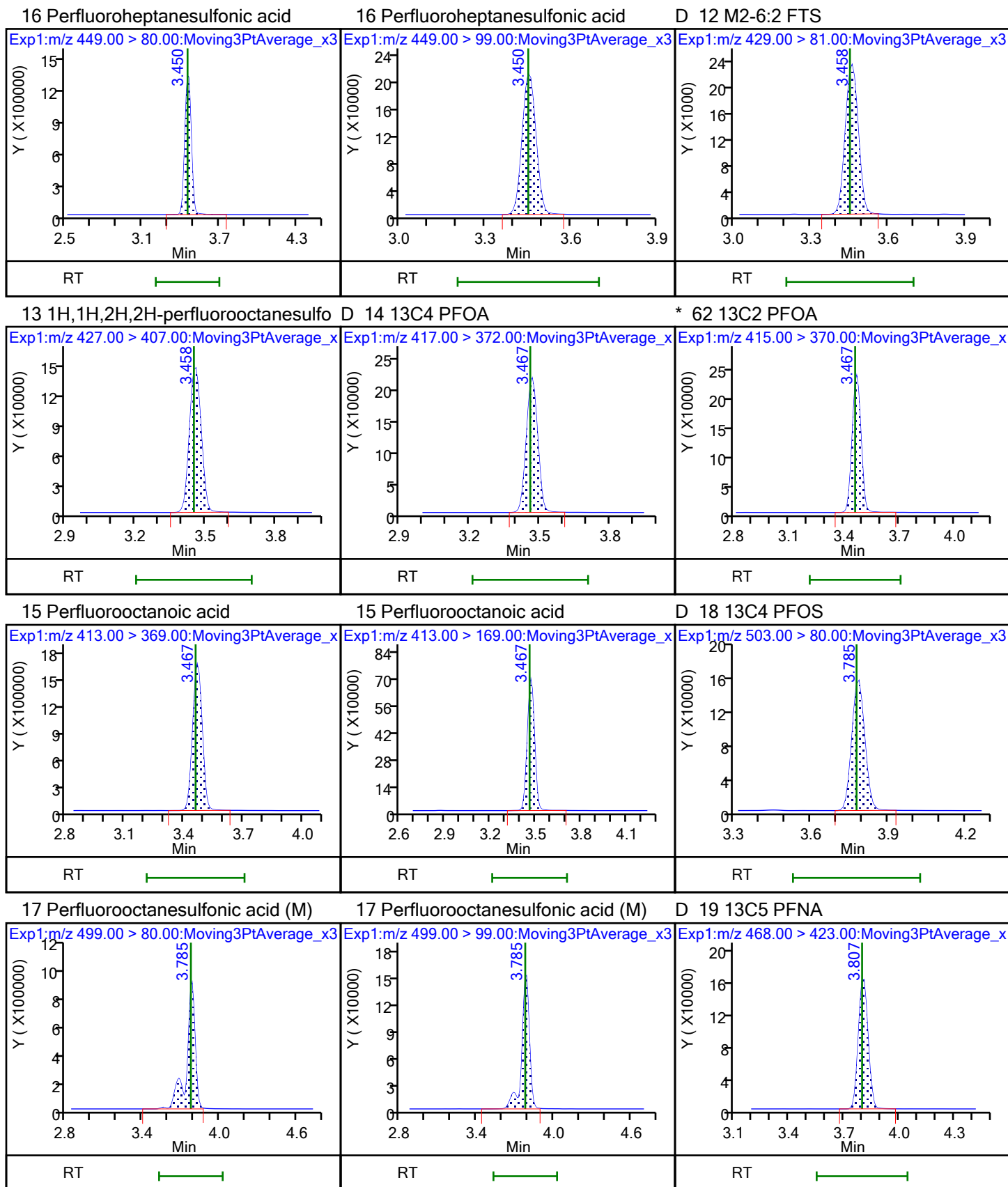
D 7 13C2 PFHxA

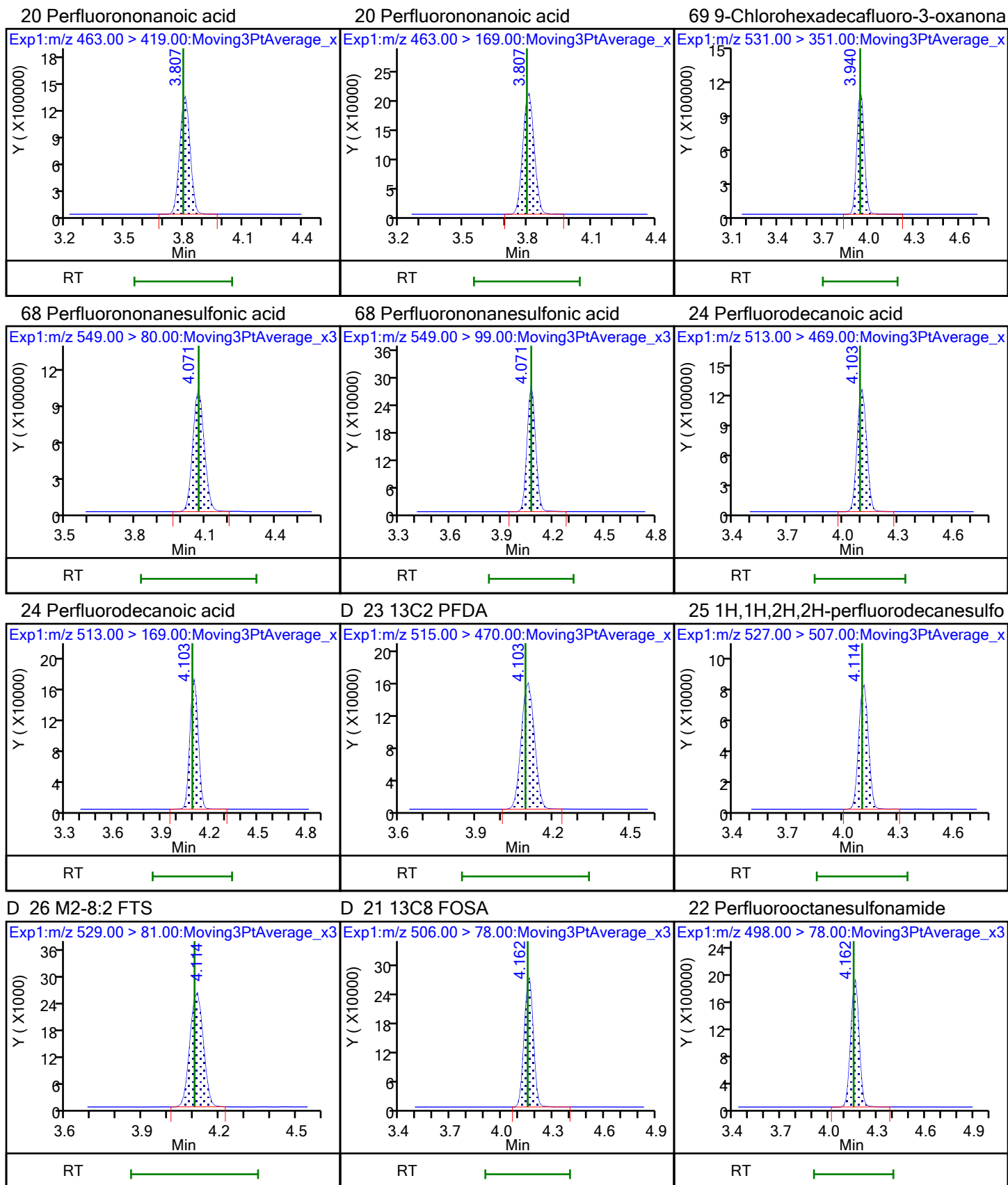
6 Perfluorohexanoic acid

6 Perfluorohexanoic acid

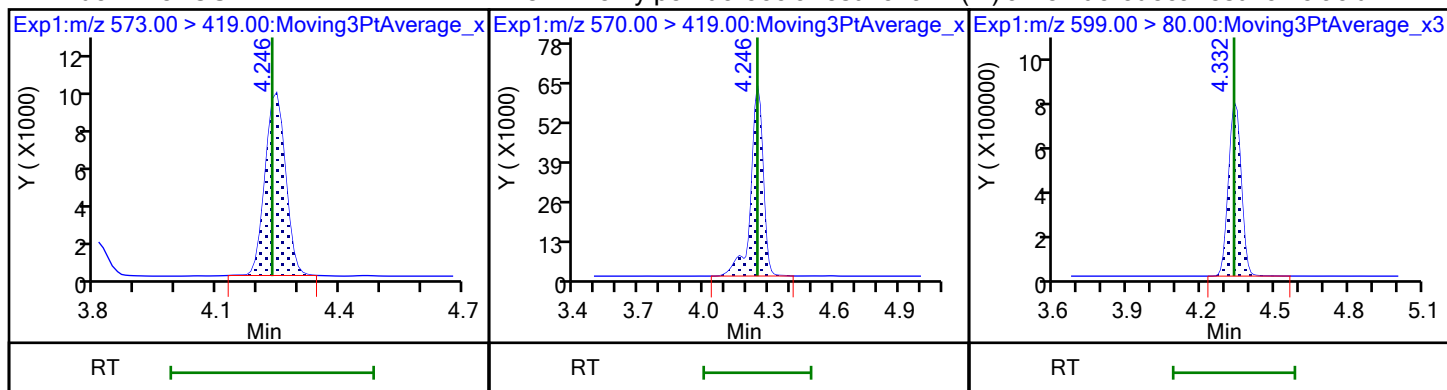








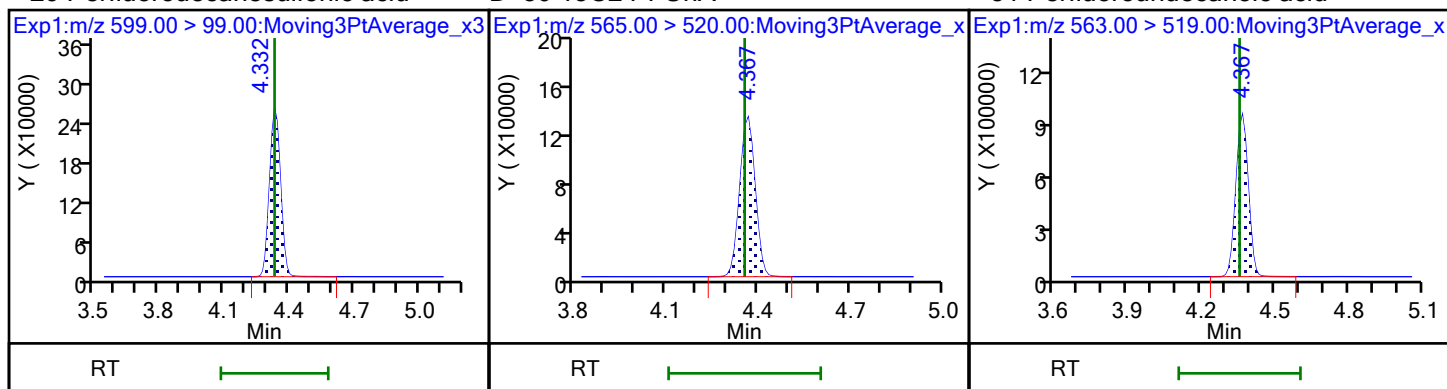
D 27 d3-NMeFOSAA

28 N-methylperfluorooctanesulfonami (M₂₉ Perfluorodecanesulfonic acid

29 Perfluorodecanesulfonic acid

D 30 13C2 PFUnA

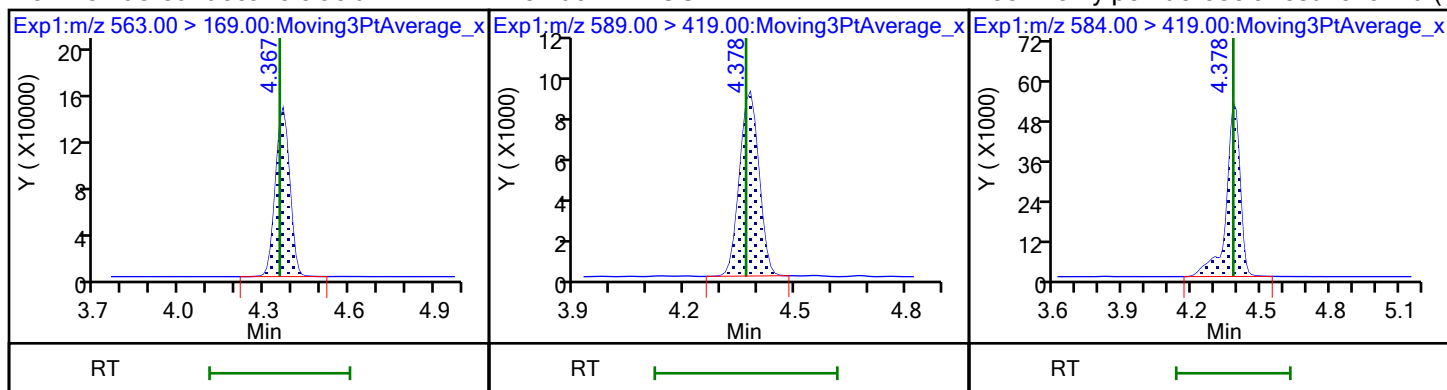
31 Perfluoroundecanoic acid



31 Perfluoroundecanoic acid

D 32 d5-NEtFOSAA

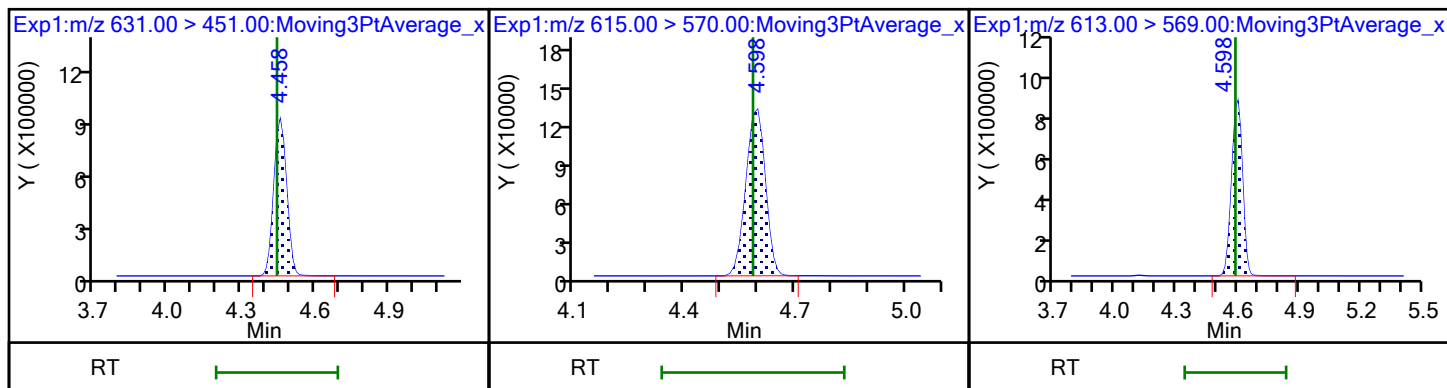
33 N-ethylperfluorooctanesulfonamid (M



66 11-Chloroeicosafluoro-3-oxaundec

D 36 13C2 PFDaA

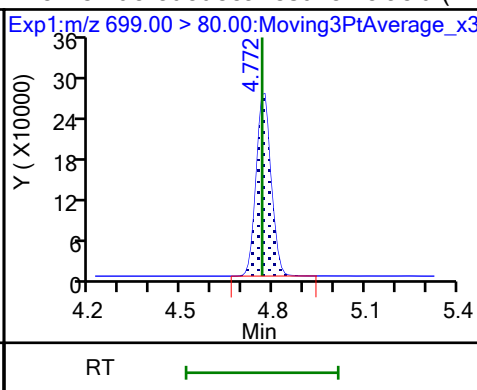
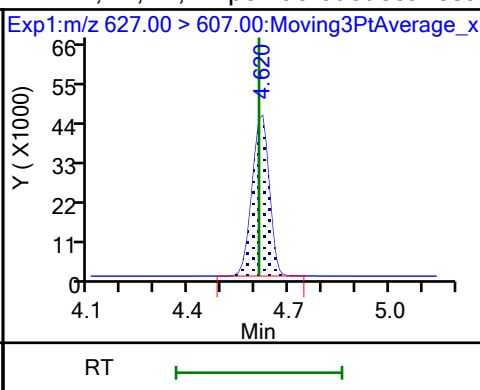
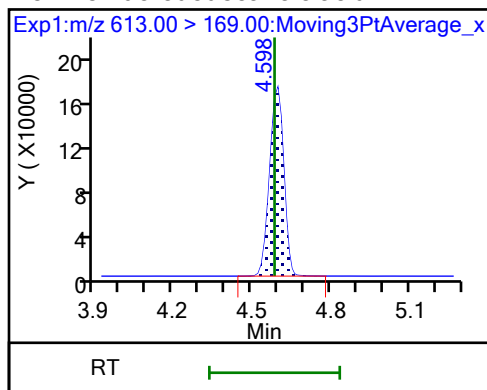
37 Perfluorododecanoic acid



37 Perfluorododecanoic acid

74 1H,1H,2H,2H-perfluorododecanesul

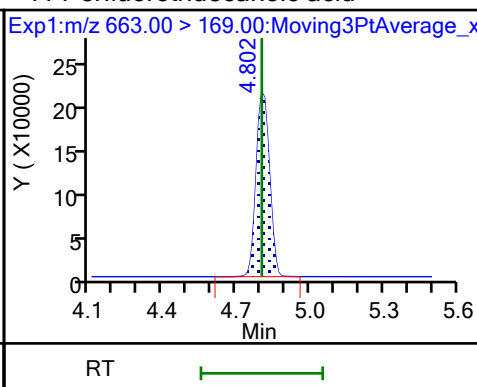
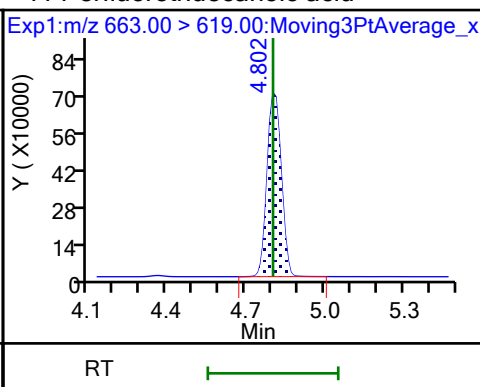
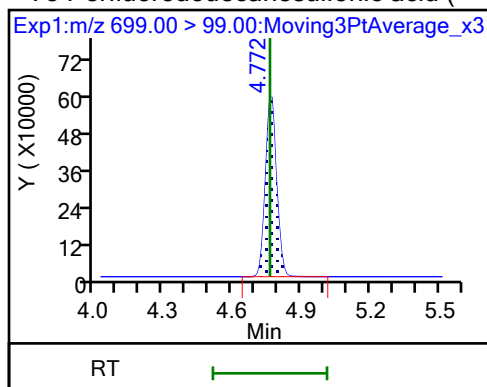
75 Perfluorododecanesulfonic acid (



75 Perfluorododecanesulfonic acid (

41 Perfluorotridecanoic acid

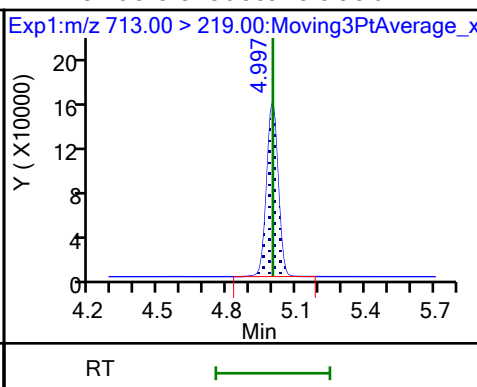
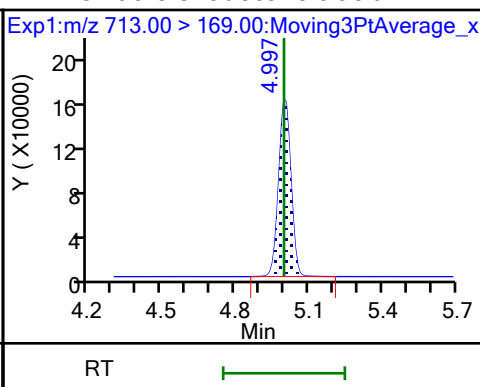
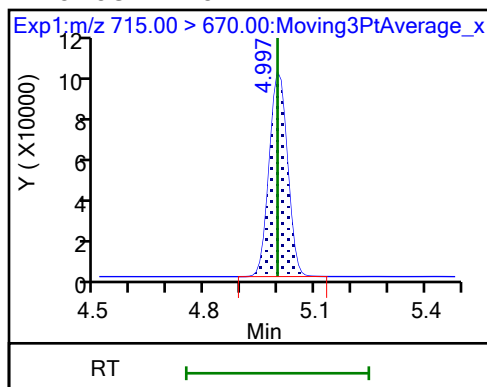
41 Perfluorotridecanoic acid



D 43 13C2 PFTeDA

42 Perfluorotetradecanoic acid

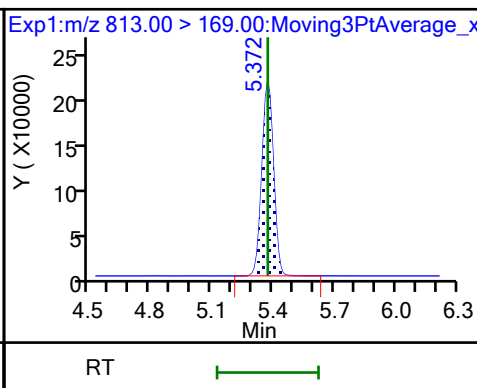
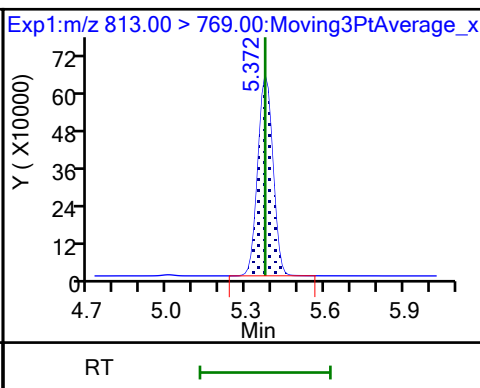
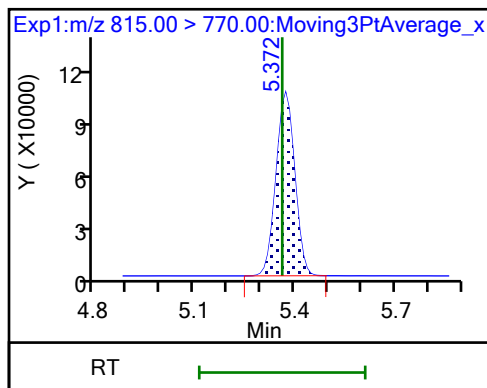
42 Perfluorotetradecanoic acid



D 44 13C2 PFHxDA

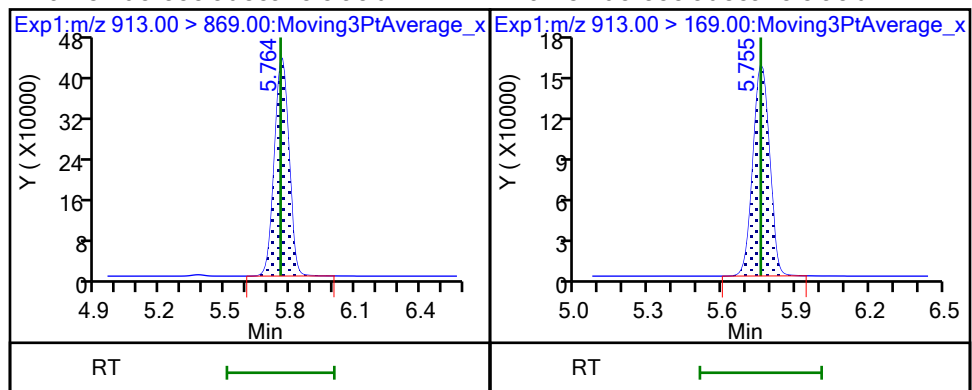
45 Perfluorohexadecanoic acid

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid

46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d

Injection Date: 22-Sep-2020 20:11:57

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

7

Worklist Smp#: 10

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

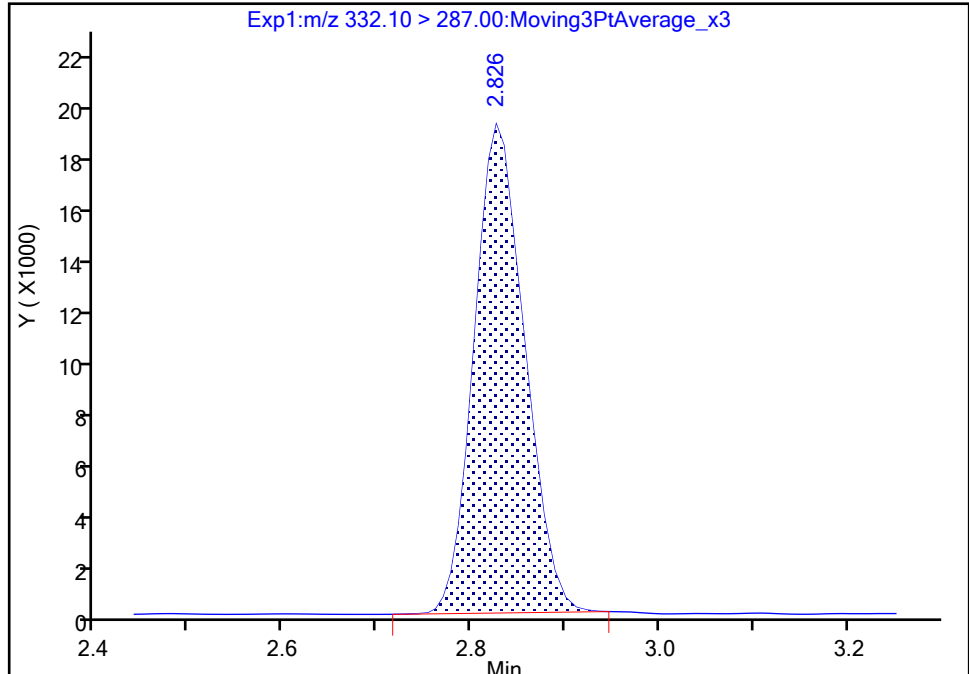
Detector: EXP1

D 64 13C3 HFPO-DA, CAS: STL02255

Signal: 1

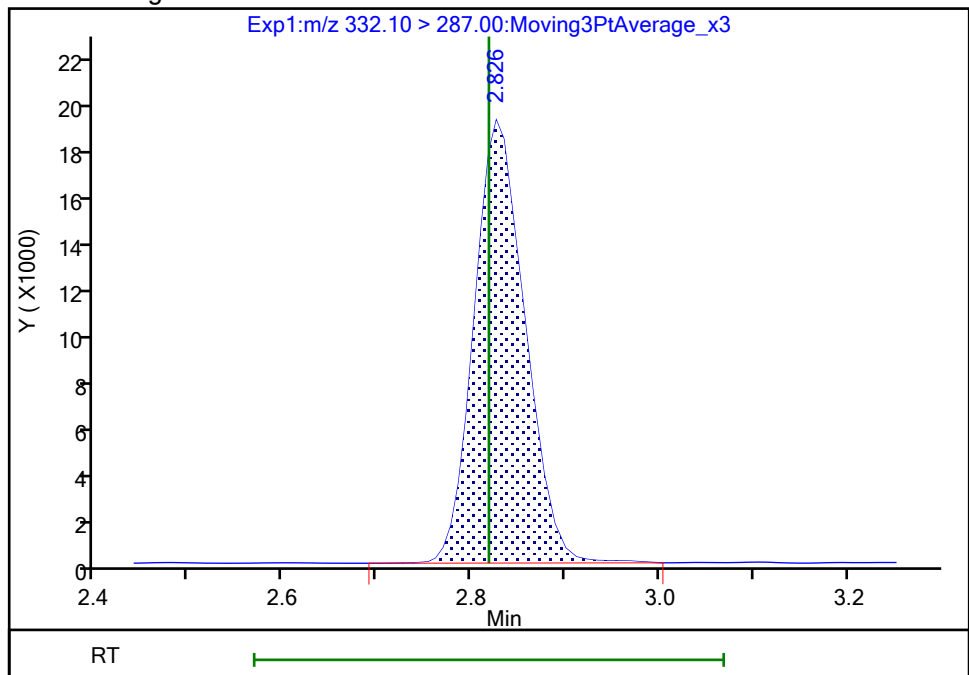
RT: 2.83
Area: 69467
Amount: 1.110400
Amount Units: ng/ml

Processing Integration Results



RT: 2.83
Area: 70282
Amount: 1.121479
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:53:10

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d

Injection Date: 22-Sep-2020 20:11:57

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

7

Worklist Smp#: 10

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

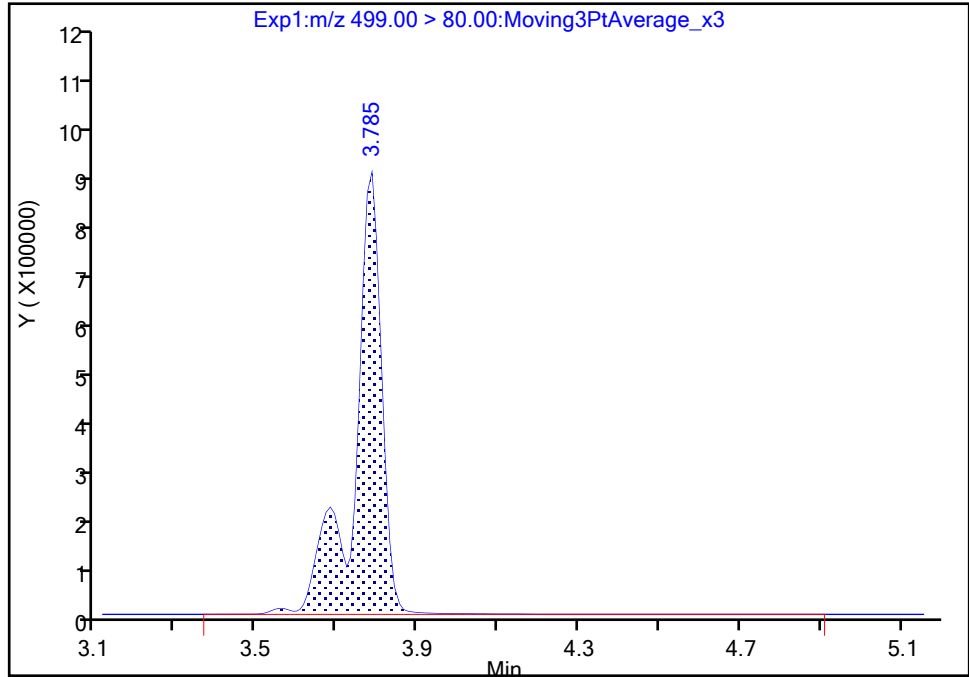
EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

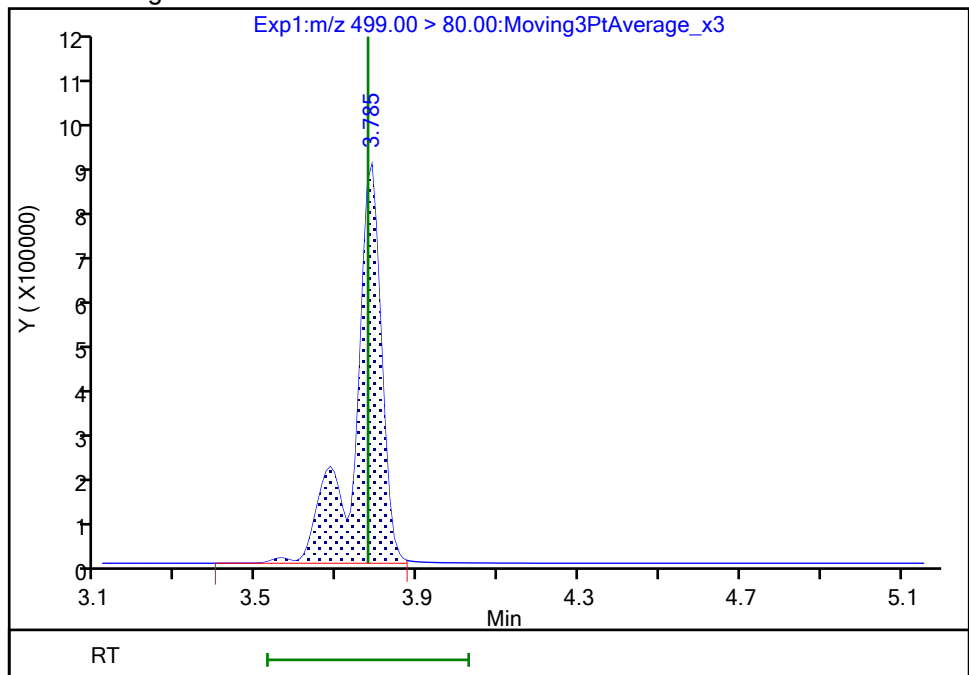
RT: 3.79
Area: 4023417
Amount: 8.346248
Amount Units: ng/ml

Processing Integration Results



RT: 3.79
Area: 4001517
Amount: 8.307597
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:46:01

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d

Injection Date: 22-Sep-2020 20:11:57

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

7

Worklist Smp#: 10

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

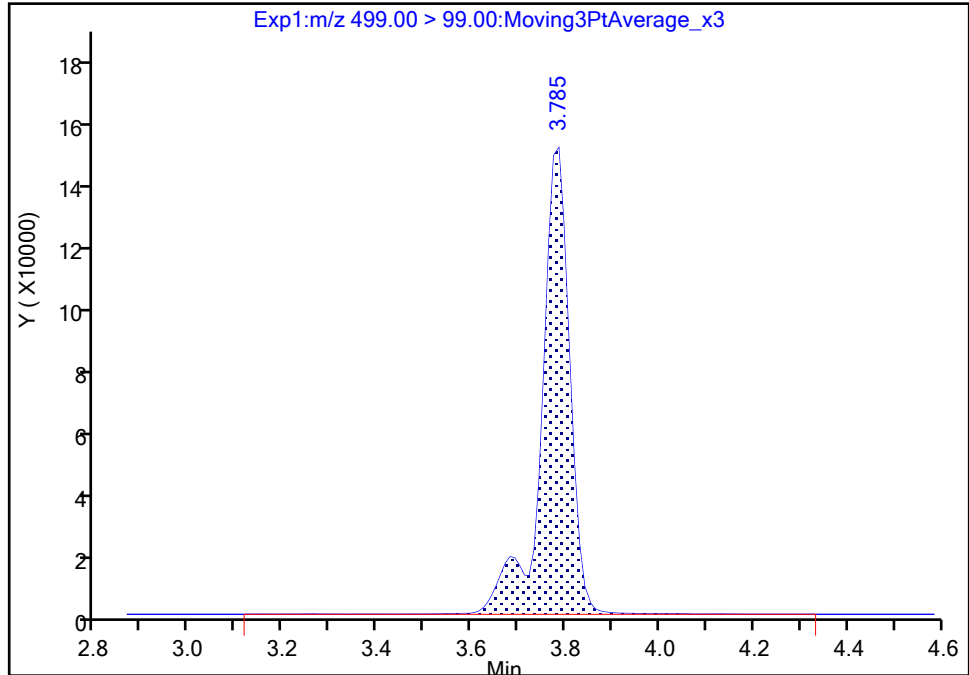
EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

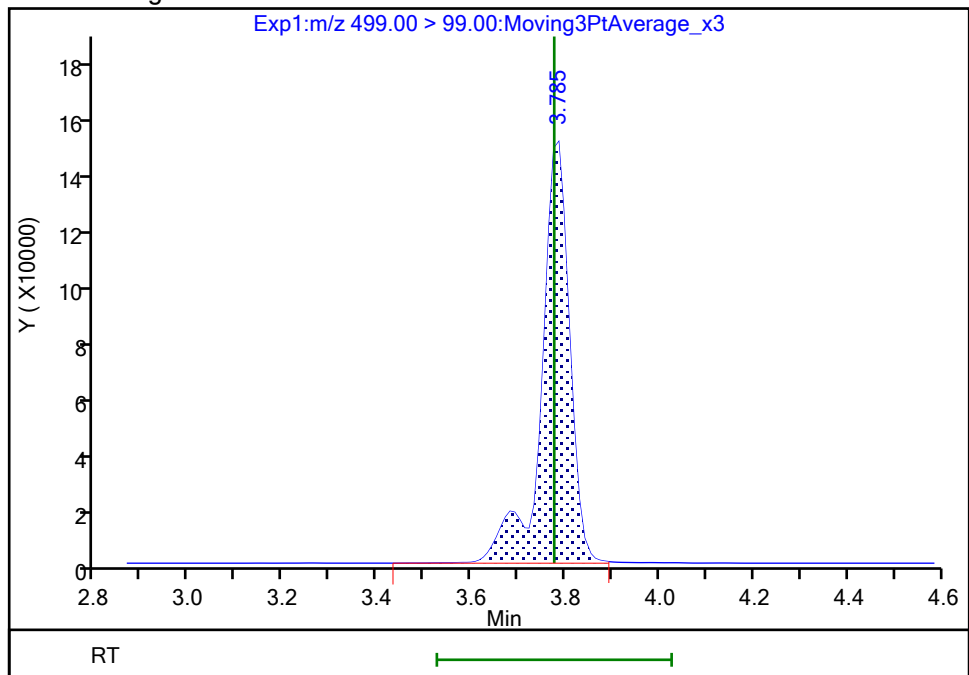
RT: 3.79
Area: 608895
Amount: 8.346248
Amount Units: ng/ml

Processing Integration Results



RT: 3.79
Area: 606003
Amount: 8.307597
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:46:03

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d

Injection Date: 22-Sep-2020 20:11:57

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

7

Worklist Smp#: 10

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

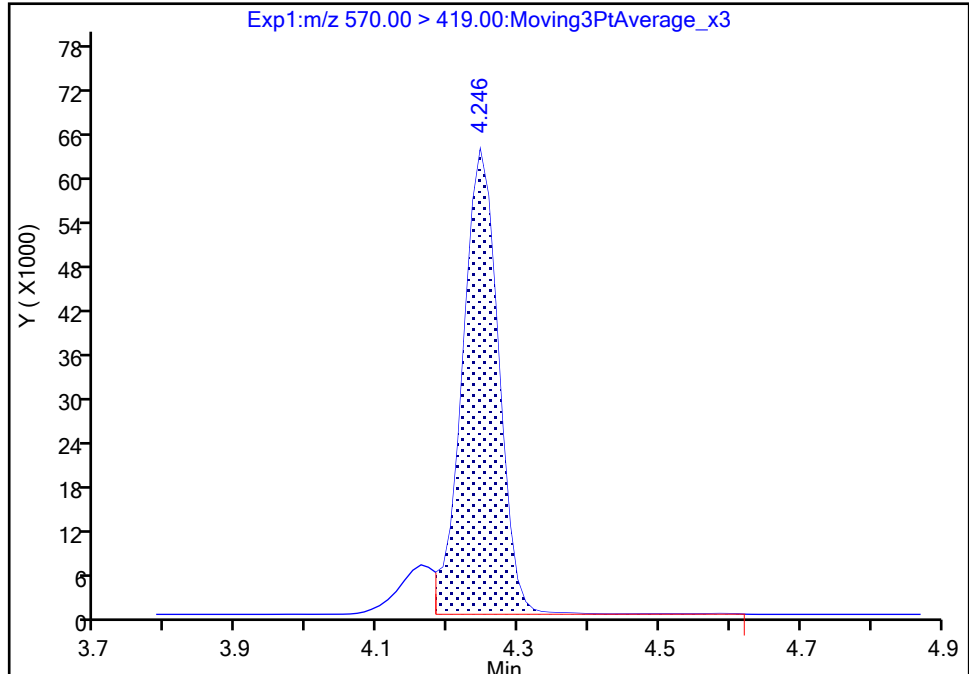
Detector: EXP1

28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

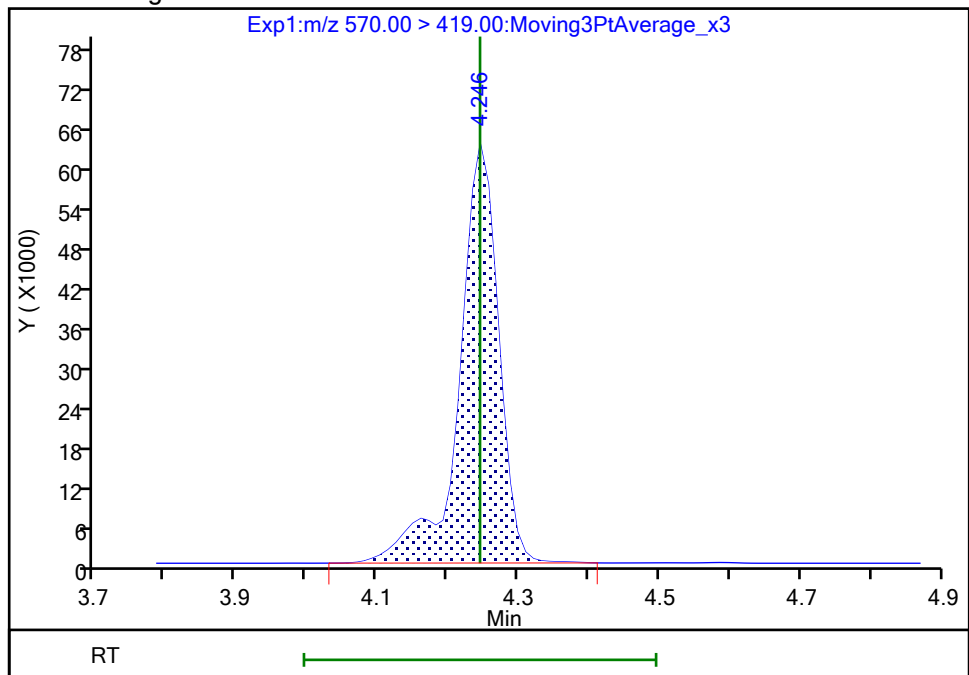
RT: 4.25
Area: 223673
Amount: 8.868980
Amount Units: ng/ml

Processing Integration Results



RT: 4.25
Area: 245746
Amount: 9.604113
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:46:17

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d

Injection Date: 22-Sep-2020 20:11:57

Instrument ID: LC812

Lims ID: IC

Client ID:

Operator ID: lc812tech

ALS Bottle#:

7

Worklist Smp#: 10

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

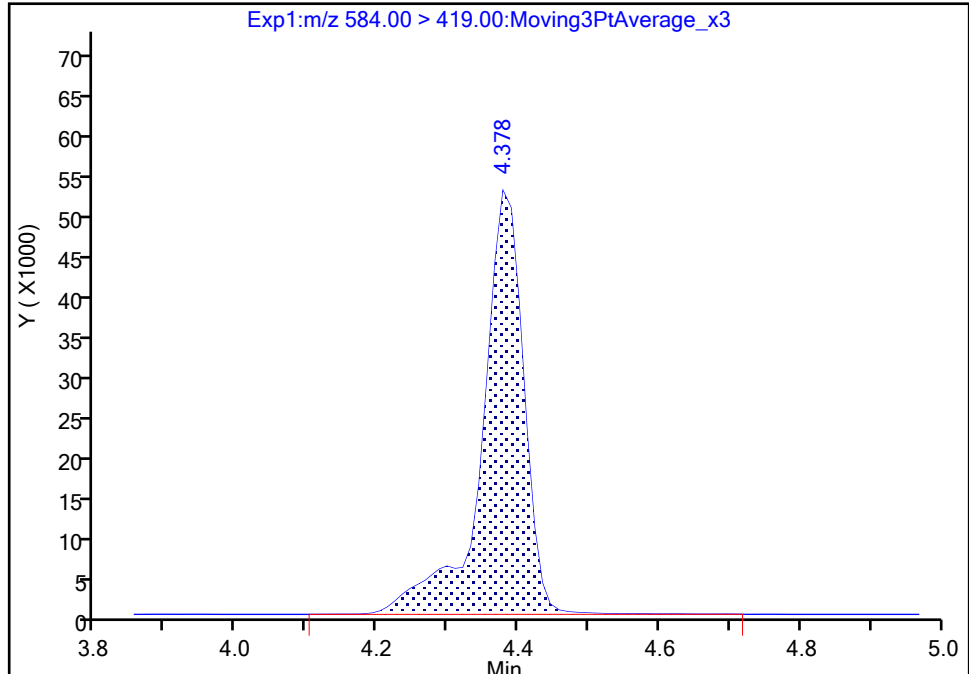
Detector: EXP1

33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

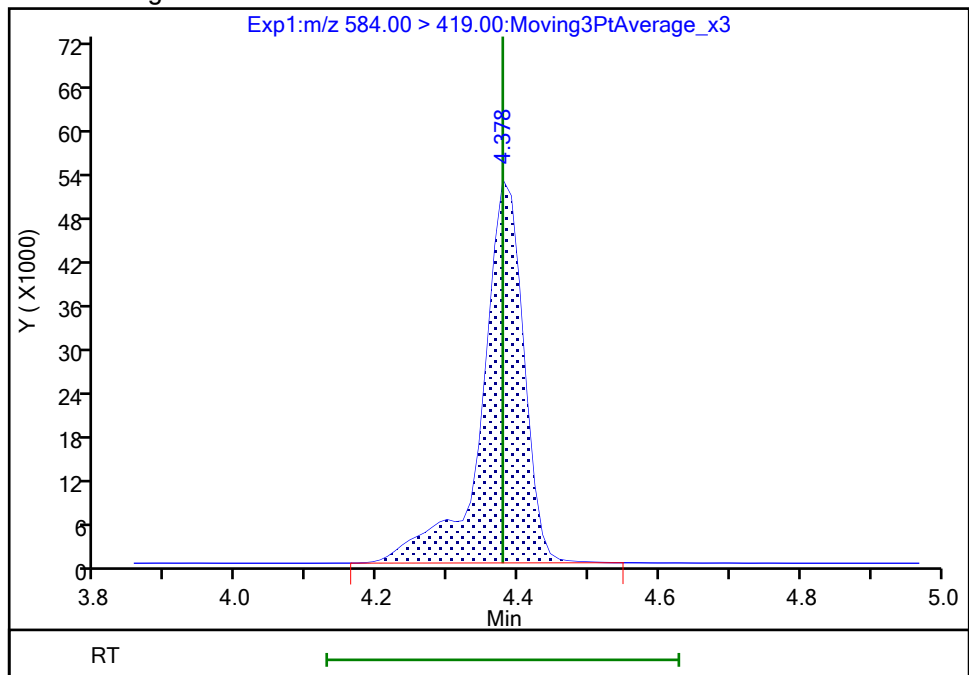
RT: 4.38
Area: 219963
Amount: 8.983798
Amount Units: ng/ml

Processing Integration Results



RT: 4.38
Area: 218696
Amount: 8.939761
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 09:46:22

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1

SDG No.: _____

Lab Sample ID: ICV 200-159115/12 Calibration Date: 09/22/2020 20:28

Instrument ID: LC812 Calib Start Date: 09/22/2020 19:30

GC Column: C-18 ID: 4.60 (mm) Calib End Date: 09/22/2020 20:11

Lab File ID: PA200922ICAL12.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9347	0.9387		1.00	1.00	0.4	40.0
Perfluoropentanoic acid (PFPeA)	AveID	1.056	1.073		1.03	1.01	1.6	40.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.996	1.043		1.05	1.00	4.7	40.0
1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	AveID	1.616	1.712		1.06	1.00	5.9	50.0
Perfluorohexanoic acid (PFHxA)	AveID	1.007	1.070		1.07	1.01	6.3	40.0
Perfluoropentanesulfonic acid	AveID	1.184	1.219		1.03	1.00	3.0	50.0
HFPO-DA	AveID	2.128	1.824		0.866	1.01	-14.3	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.104	1.164		1.06	1.01	5.4	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.002	1.015		1.01	1.00	1.2	40.0
DONA	AveID	3.081	3.067		0.995	1.00	-0.5	50.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.159	1.160		1.00	1.00	0.0	50.0
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	AveID	0.7981	0.7945		0.996	1.00	-0.4	40.0
Perfluorooctanoic acid (PFOA)	AveID	1.032	1.041		1.01	1.00	0.8	40.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.087	0.9577		0.890	1.01	-11.9	40.0
Perfluorononanoic acid (PFNA)	AveID	1.018	1.090		1.07	1.00	7.0	40.0
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	AveID	0.9564	0.9500		0.993	1.00	-0.7	50.0
Perfluorononanesulfonic acid	AveID	0.8588	0.8915		1.05	1.01	3.8	50.0
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	AveID	0.3958	0.4063		1.04	1.01	2.6	40.0
Perfluorodecanoic acid (PFDA)	AveID	0.9894	1.022		1.03	1.00	3.3	40.0
Perfluorooctanesulfonamide (PFOSA)	AveID	0.9348	0.9201		0.984	1.00	-1.6	40.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.9437	0.9146		0.969	1.00	-3.1	40.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.7186	0.6926		0.973	1.01	-3.6	50.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.9863	0.9682		0.982	1.00	-1.8	40.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.9155	0.8408		0.918	1.00	-8.2	40.0
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	AveID	0.8250	0.8487		1.03	1.00	2.9	50.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9752	0.9783		1.00	1.00	0.3	40.0
10:2 FTS	AveID	0.2199	0.2322		1.02	0.964	5.6	50.0
Perfluorododecanesulfonic acid (PFDoS)	AveID	0.2306	0.2021		0.848	0.968	-12.3	50.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.8282	0.8316		1.00	1.00	0.4	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2290	0.2526		1.10	1.00	10.3	40.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Lab Sample ID: ICV 200-159115/12 Calibration Date: 09/22/2020 20:28
 Instrument ID: LC812 Calib Start Date: 09/22/2020 19:30
 GC Column: C-18 ID: 4.60 (mm) Calib End Date: 09/22/2020 20:11
 Lab File ID: PA200922ICAL12.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.8990		1.01	1.00	1.1	40.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	0.7473	0.7032		0.941	1.00	-5.9	50.0
13C4 PFBA	Ave	1.433	1.161		1.01	1.25	-19.0	50.0
13C5 PFPeA	Ave	1.027	0.8577		1.04	1.25	-16.5	50.0
13C3 PFBS	Ave	1.251	0.999		0.928	1.16	-20.1	50.0
M2-4:2 FTS	Ave	0.0939	0.0757		0.941	1.17	-19.4	50.0
13C2 PFHxA	Ave	1.058	0.8731		1.03	1.25	-17.4	50.0
13C3 HFPO-DA	Ave	0.0985	0.0913		1.16	1.25	-7.3	50.0
13C4 PFHpA	Ave	0.9620	0.7810		1.01	1.25	-18.8	50.0
18O2 PFHxS	Ave	0.8974	0.7367		0.971	1.18	-17.9	50.0
M2-6:2 FTS	Ave	0.1199	0.0984		0.974	1.19	-18.0	50.0
13C4 PFOA	Ave	0.9845	0.8340		1.06	1.25	-15.3	50.0
13C4 PFOS	Ave	0.7341	0.6191		1.01	1.20	-15.7	50.0
13C5 PFNA	Ave	0.8296	0.7002		1.05	1.25	-15.6	50.0
13C2 PFDA	Ave	0.7956	0.6508		1.02	1.25	-18.2	50.0
M2-8:2 FTS	Ave	0.1413	0.1242		1.05	1.20	-12.0	50.0
13C8 FOSA	Ave	1.282	1.088		1.06	1.25	-15.2	50.0
d3-NMeFOSAA	Ave	0.0453	0.0367		1.01	1.25	-19.0	50.0
13C2 PFUnA	Ave	0.6006	0.4916		1.02	1.25	-18.1	50.0
d5-NEtFOSAA	Ave	0.0487	0.0406		1.04	1.25	-16.6	50.0
13C2 PFDoA	Ave	0.6348	0.4901		0.965	1.25	-22.8	50.0
13C2 PFTeDA	Ave	0.4522	0.3677		1.02	1.25	-18.7	50.0
13C2 PFHxDA	Ave	0.5124	0.4409		1.08	1.25	-14.0	50.0

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL12.d
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 22-Sep-2020 20:28:29 ALS Bottle#: 9 Worklist Smp#: 12
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: ICV
 Misc. Info.: 200-0042904-012 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Sublist:
 Method: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 23-Sep-2020 10:28:45 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1050

First Level Reviewer: chirgwinb

Date: 23-Sep-2020 10:17:25

Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	2.000	1.990	0.010	0.577	1150614	1.01		81.0	6887	
2 Perfluorobutanoic acid										M
212.90 > 169.00	2.000	2.000	0.0	1.000	864051	1.00			133	M
D 3 13C5 PFPeA										
267.90 > 223.00	2.340	2.339	0.001	0.675	850232	1.04		83.5	3611	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.340	2.339	0.001	1.000	737460	1.03			44.2	M
D 47 13C3 PFBS										
301.90 > 80.00	2.353	2.353	0.0	0.679	920695	0.9283		79.9	286247	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.367	2.353	0.014	1.006	826341	1.05	Target=2.07		2729	
298.90 > 99.00	2.367	2.353	0.014	1.006	391959		2.11(1.04-3.11)		521	
61 1H,1H,2H,2H-perfluorohexanesulfo										
327.00 > 307.00	2.678	2.678	0.0	1.000	102792	1.06			999	
D 60 M2-4:2 FTS										
329.00 > 81.00	2.678	2.678	0.0	0.772	70109	0.9411		80.6	205	
D 7 13C2 PFHxA										
315.00 > 270.00	2.716	2.716	0.0	0.783	865463	1.03		82.6	4590	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.716	2.716	0.0	1.000	748489	1.07	Target=12.44		336	
313.00 > 119.00	2.716	2.716	0.0	1.000	61544		12.16(6.22-18.66)		194	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.716	2.716	0.0	0.877	712461	1.03	Target=3.64		1798	
349.00 > 99.00	2.716	2.716	0.0	0.877	208174		3.42(1.82-5.46)		829	
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.826	2.818	0.008	0.815	90533	1.16		92.7	1323	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
67 Perfluoro(2-propoxypropanoic) ac										M
329.10 > 285.00	2.826	2.826	0.0	1.000	133453	0.8660			30.3	M
D 11 18O2 PFHxS										
403.00 > 84.00	3.096	3.084	0.012	0.893	690870	0.9709		82.1	1471	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.096	3.096	0.0	1.000	686590	1.06	Target=4.60		2433	
399.00 > 99.00	3.096	3.096	0.0	1.000	134292		5.11(2.30-6.91)		340	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.108	3.096	0.012	1.004	628402	1.01	Target=3.34		313	
363.00 > 169.00	3.096	3.096	0.0	1.000	188019		3.34(1.67-5.01)		1119	
D 9 13C4 PFHpA										
367.00 > 322.00	3.096	3.096	0.0	0.893	774212	1.01		81.2	3571	
77 DONA										
377.00 > 251.00	3.140	3.132	0.008	0.832	1505622	1.00	Target=2.44		2998	
377.00 > 85.00	3.132	3.132	0.0	0.829	634115		2.37(1.22-3.67)		1611	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.450	3.450	0.0	0.914	569312	1.00	Target=7.08		2472	
449.00 > 99.00	3.450	3.450	0.0	0.914	83779		6.80(3.54-10.63)		764	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.459	3.450	0.009	0.998	92645	0.9741		82.0	875	
13 1H,1H,2H,2H-perfluorooctanesulfo										
427.00 > 407.00	3.459	3.450	0.009	1.000	61983	1.00			1681	
D 14 13C4 PFOA										
417.00 > 372.00	3.467	3.458	0.009	1.000	826693	1.06		84.7	4845	
* 62 13C2 PFOA										
415.00 > 370.00	3.467	3.458	0.009		991256	1.25			3693	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.467	3.458	0.009	1.000	688452	1.01	Target=2.29		309	
413.00 > 169.00	3.467	3.458	0.009	1.000	301404		2.28(1.14-3.43)		686	
D 18 13C4 PFOS										
503.00 > 80.00	3.776	3.776	0.0	1.089	586664	1.01		84.3	2829	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.786	3.776	0.010	1.003	474868	0.8901	Target=7.10		690	M
499.00 > 99.00	3.776	3.776	0.0	1.000	68757		6.91(3.55-10.64)		467	M
D 19 13C5 PFNA										
468.00 > 423.00	3.797	3.797	0.0	1.095	694063	1.05		84.4	6107	
20 Perfluorononanoic acid										
463.00 > 419.00	3.808	3.797	0.011	1.003	605170	1.07	Target=5.83		220	
463.00 > 169.00	3.808	3.797	0.011	1.003	106721		5.67(2.91-8.74)		1543	
69 9-Chlorohexadecafluoro-3-oxanona										
531.00 > 351.00	3.941	3.941	0.0	1.044	466375	0.99			3637	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.072	4.072	0.0	1.078	442021	1.05	Target=3.38		4533	
549.00 > 99.00	4.072	4.072	0.0	1.078	119472		3.70(1.69-5.08)		731	
24 Perfluorodecanoic acid										
513.00 > 469.00	4.104	4.092	0.012	1.003	527425	1.03	Target=6.81		954	
513.00 > 169.00	4.104	4.092	0.012	1.003	75173		7.02(3.41-10.22)		1145	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 23 13C2 PFDA										
515.00 > 470.00	4.092	4.092	0.0	1.180	645146	1.02		81.8	8883	
25 1H,1H,2H,2H-perfluorodecanesulfo										
527.00 > 507.00	4.104	4.103	0.001	0.997	40427	1.04			3628	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.115	4.103	0.012	1.187	117984	1.05		88.0	1532	
D 21 13C8 FOSA										
506.00 > 78.00	4.161	4.151	0.010	1.200	1078232	1.06		84.8	3303	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.161	4.151	0.010	1.000	793702	0.9843			1267	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.235	4.235	0.0	1.221	36363	1.01		81.0	215	
28 N-methylperfluorooctanesulfonami										
570.00 > 419.00	4.245	4.245	0.0	1.002	26606	0.9691			429	M
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.332	4.332	0.0	1.147	343397	0.9734	Target=3.31		2161	
599.00 > 99.00	4.332	4.332	0.0	1.147	104146		3.30(1.66-4.97)		859	
D 30 13C2 PFUnA										
565.00 > 520.00	4.366	4.355	0.011	1.259	487318	1.02		81.9	4542	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.366	4.355	0.011	1.000	377469	0.9817	Target=6.57		474	M
563.00 > 169.00	4.366	4.355	0.011	1.000	63902		5.91(3.28-9.85)		363	M
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.366	4.366	0.0	1.259	40256	1.04		83.4	595	
33 N-ethylperfluorooctanesulfonamid										
584.00 > 419.00	4.378	4.378	0.0	1.003	27079	0.9184			417	M
66 11-Chloroeicosafuoro-3-oxaundec										
631.00 > 451.00	4.457	4.444	0.013	1.180	416673	1.03			2877	
D 36 13C2 PFDaA										
615.00 > 570.00	4.598	4.585	0.013	1.326	485775	0.9651		77.2	3554	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.598	4.585	0.013	1.000	380178	1.00	Target=5.16		320	
613.00 > 169.00	4.598	4.585	0.013	1.000	74490		5.10(2.58-7.75)		1361	
74 1H,1H,2H,2H-perfluorododecanesul										
627.00 > 607.00	4.620	4.610	0.010	1.123	22058	1.02			432	
75 Perfluorododecanesulfonic acid (										
699.00 > 80.00	4.763	4.763	0.0	1.261	96044	0.8485	Target=0.45		242	
699.00 > 99.00	4.763	4.763	0.0	1.261	234705		0.41(0.22-0.67)		2488	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.802	4.802	0.0	1.045	323186	1.00	Target=3.30		179	M
663.00 > 169.00	4.802	4.802	0.0	1.045	91812		3.52(1.65-4.95)		438	
D 43 13C2 PFTeDA										
715.00 > 670.00	4.997	4.998	-0.001	1.441	364457	1.02		81.3	3816	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.997	4.998	-0.001	1.000	73661	1.10	Target=1.06		837	M
713.00 > 219.00	4.997	4.998	-0.001	1.000	71553		1.03(0.53-1.59)		305	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 44 13C2 PFHxDA										
815.00 > 770.00	5.372	5.361	0.011	1.549	437013	1.08		86.0	3456	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.372	5.372	0.0	1.000	314298	1.01	Target=3.06		229	
813.00 > 169.00	5.372	5.372	0.0	1.000	101608		3.09(1.53-4.58)		2210	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.755	5.756	-0.001	1.071	245841	0.9409	Target=2.82		200	
913.00 > 169.00	5.755	5.756	-0.001	1.071	89112		2.76(1.41-4.24)		1056	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

LCPFAS28NCICV_00004

Amount Added: 100.00

Units: uL

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL12.d

Injection Date: 22-Sep-2020 20:28:29

Instrument ID: LC812

Lims ID: ICV

Client ID:

Operator ID: lc812tech

ALS Bottle#: 9

Worklist Smp#: 12

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

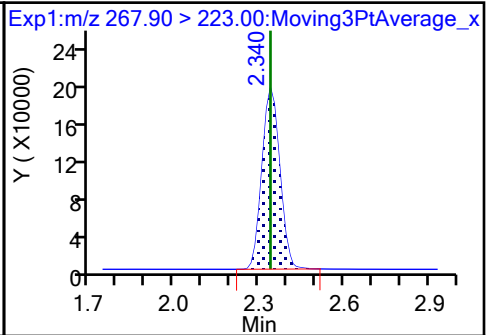
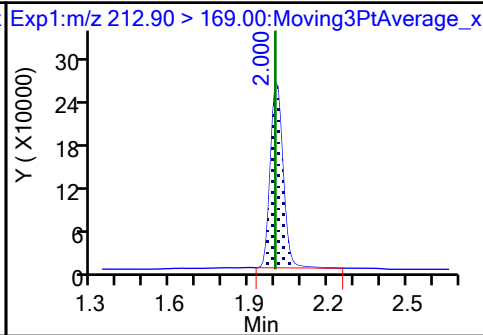
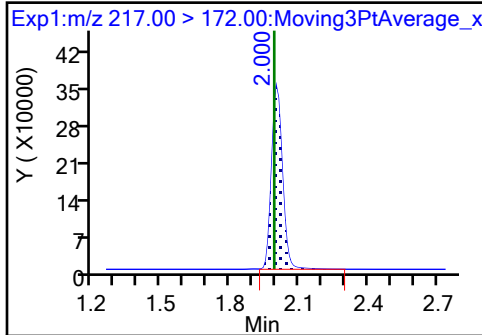
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid (M)

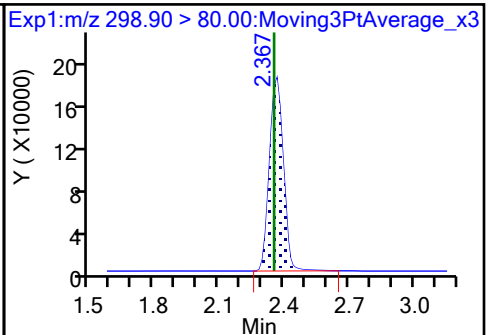
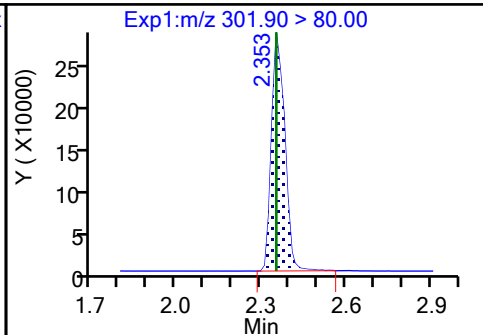
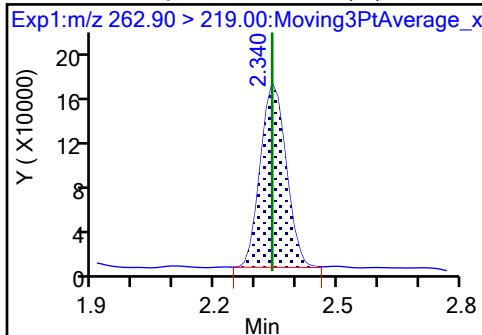
D 3 13C5 PFPeA



4 Perfluoropentanoic acid (M)

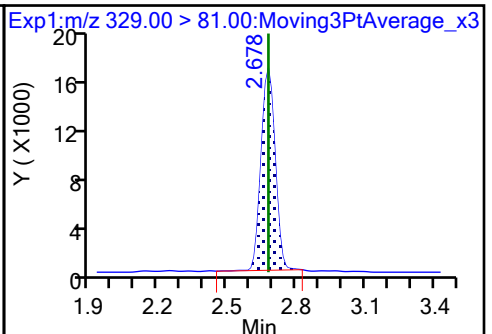
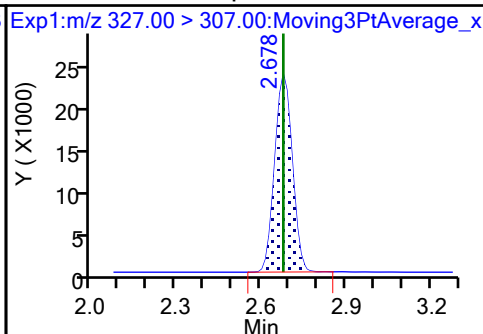
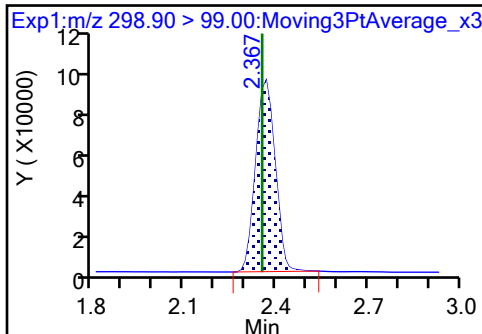
D 47 13C3 PFBS

5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

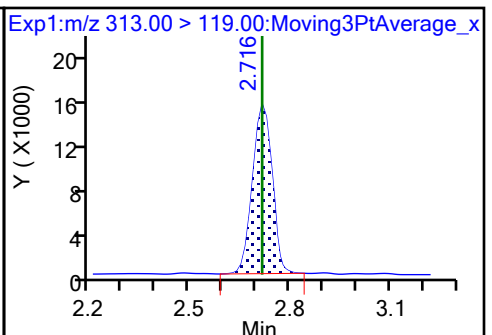
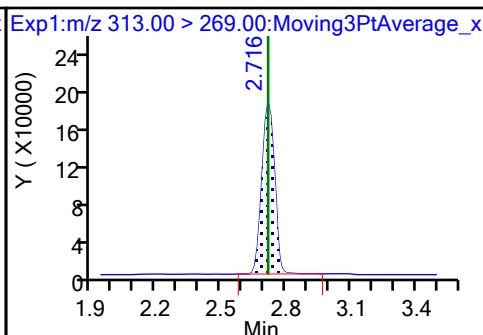
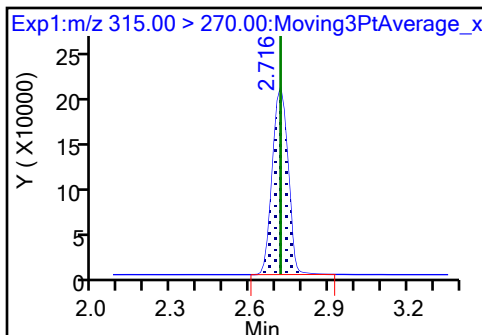
61 1H,1H,2H,2H-perfluorohexanesulfo D 60 M2-4:2 FTS

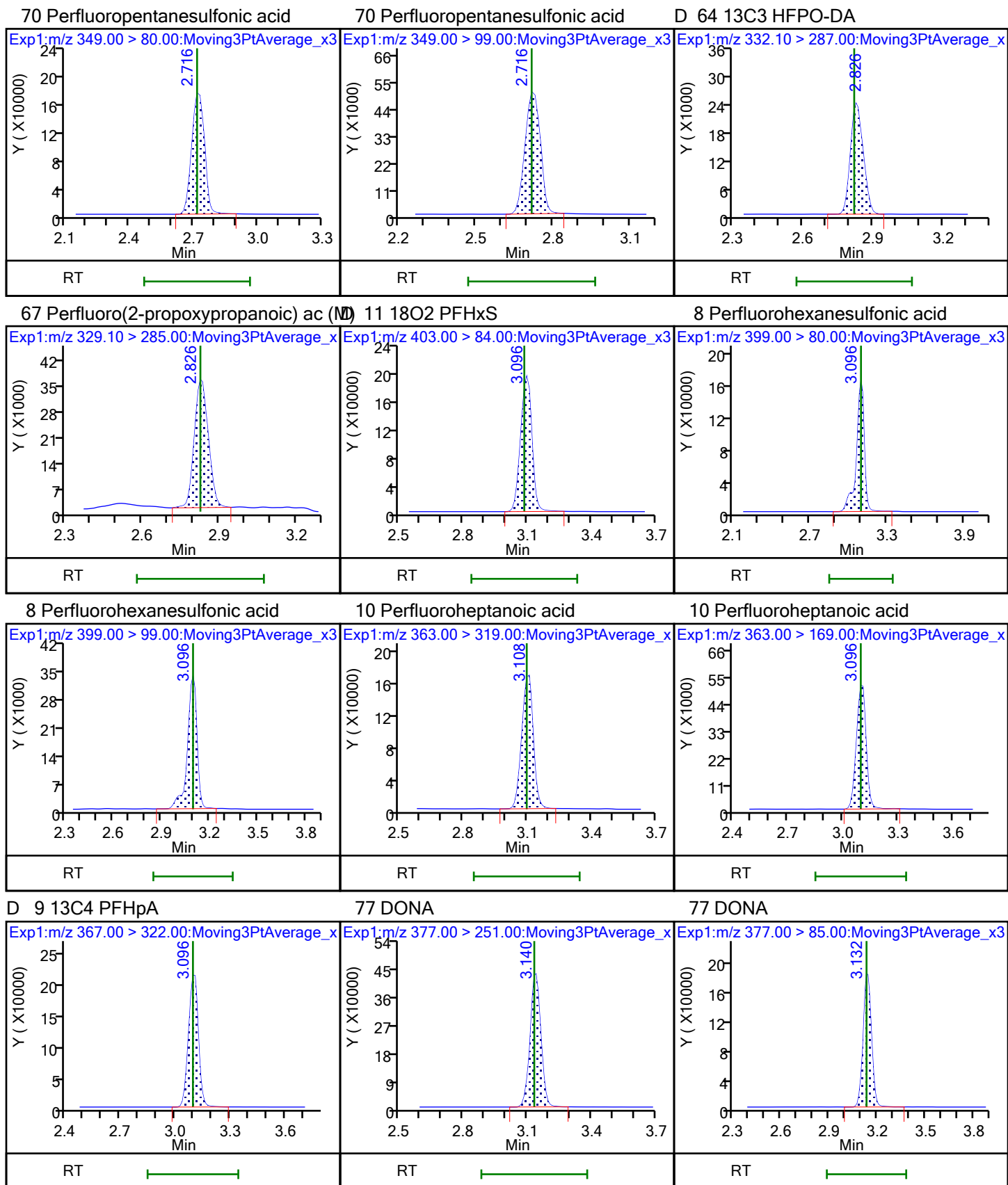


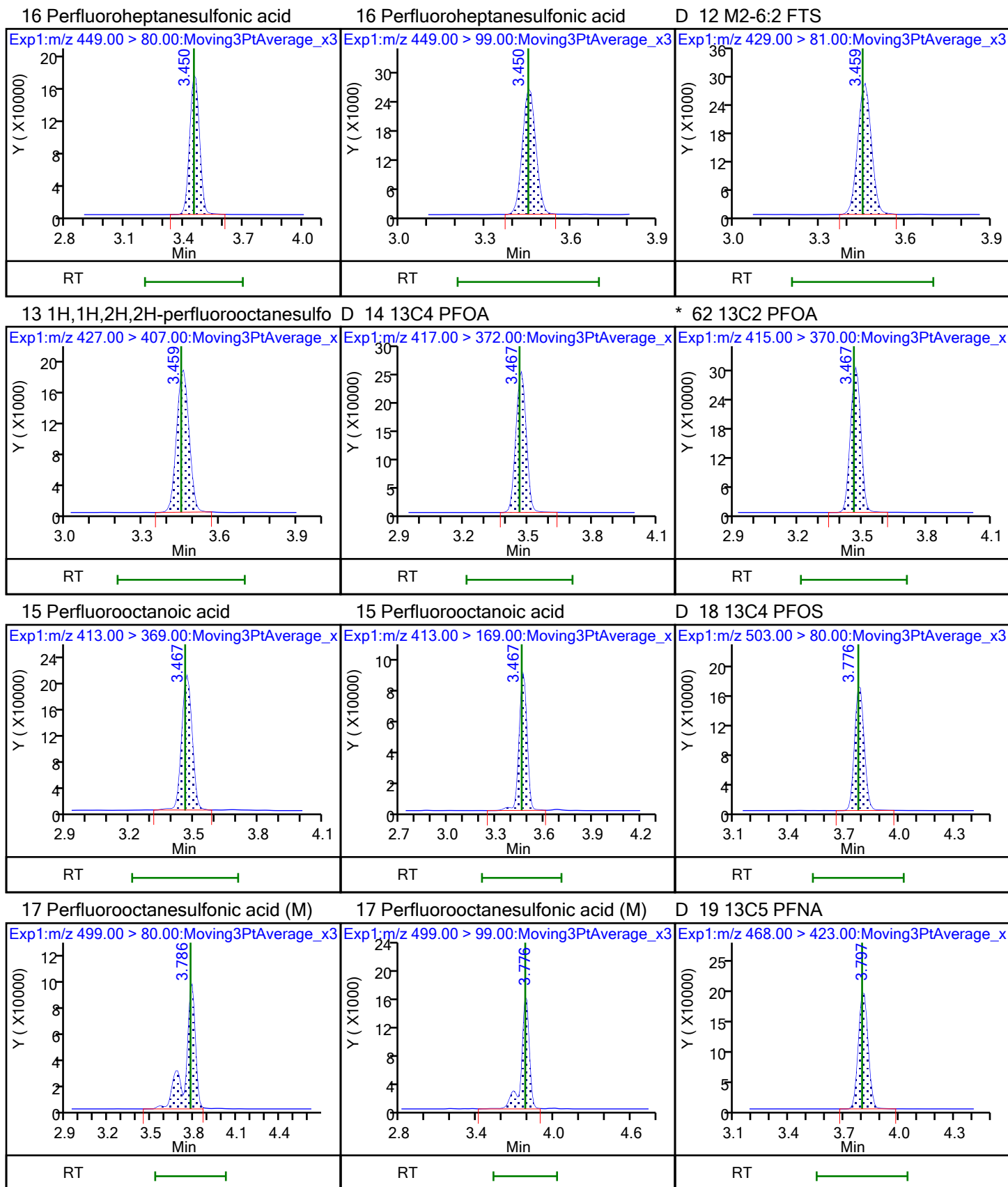
D 7 13C2 PFHxA

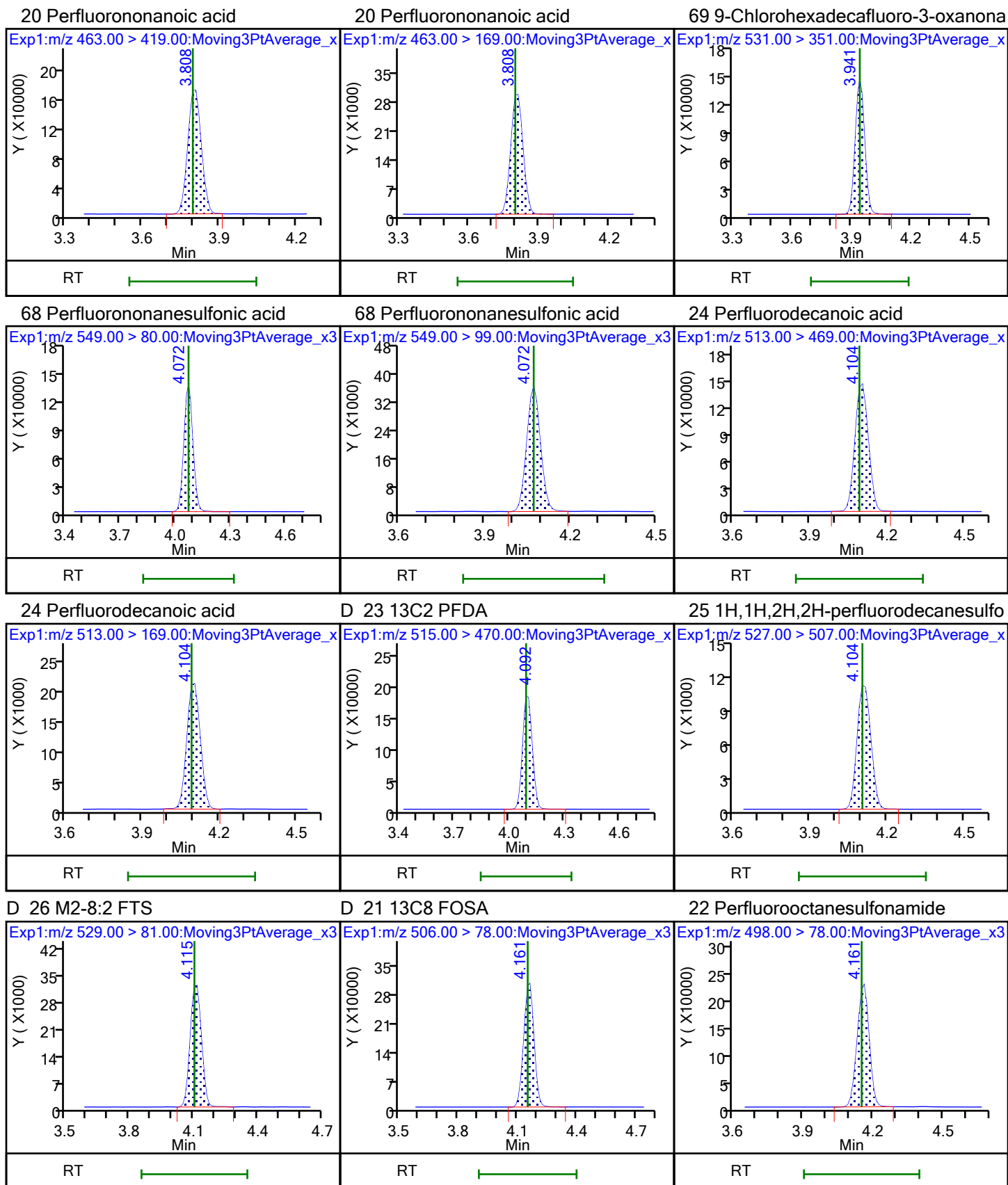
6 Perfluorohexanoic acid

6 Perfluorohexanoic acid



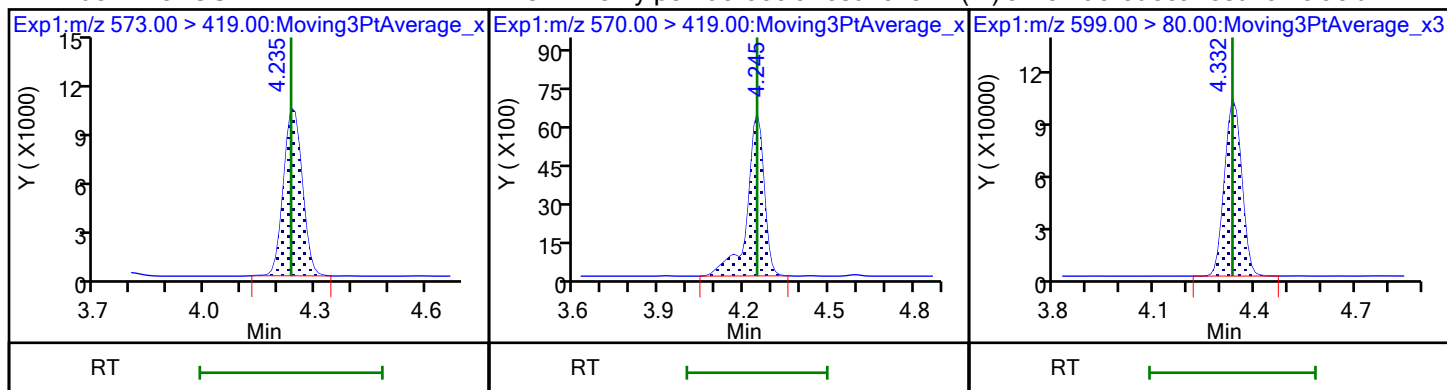






D 27 d3-NMeFOSAA

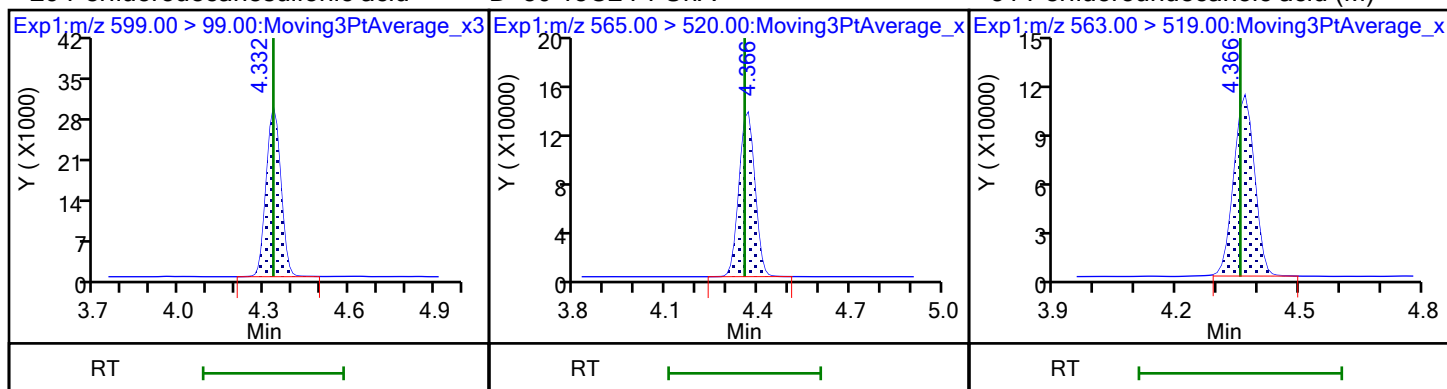
28 N-methylperfluorooctanesulfonami (M29 Perfluorodecanesulfonic acid



29 Perfluorodecanesulfonic acid

D 30 13C2 PFUnA

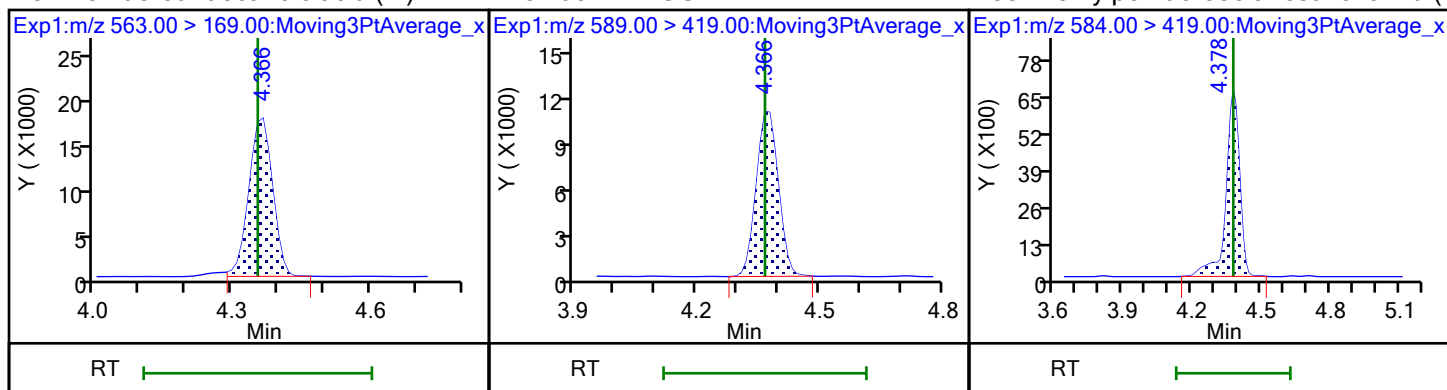
31 Perfluoroundecanoic acid (M)



31 Perfluoroundecanoic acid (M)

D 32 d5-NEtFOSAA

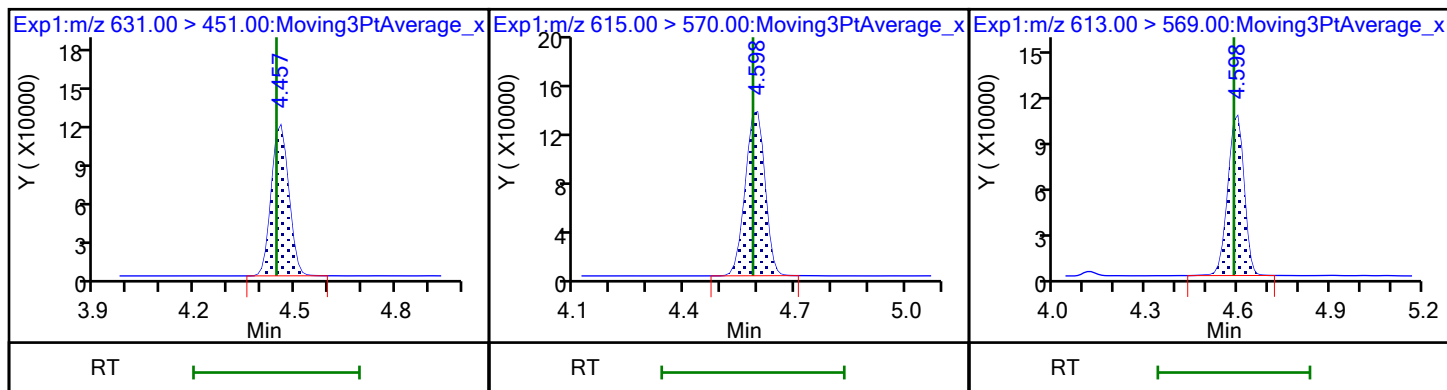
33 N-ethylperfluorooctanesulfonamid (M)



66 11-Chloroeicosafluoro-3-oxaundec

D 36 13C2 PFDaA

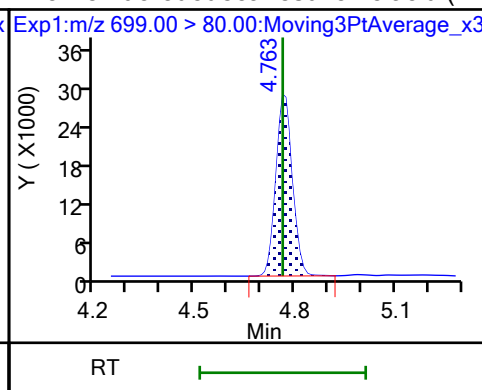
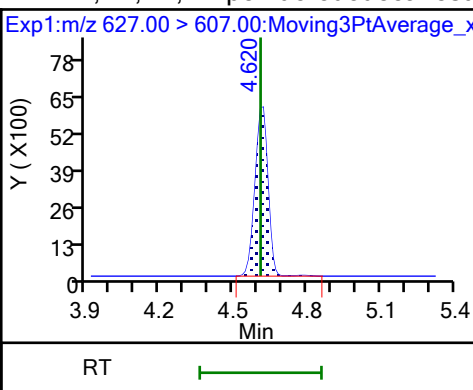
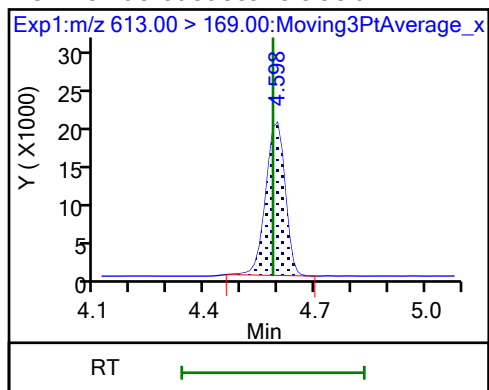
37 Perfluorododecanoic acid



37 Perfluorododecanoic acid

74 1H,1H,2H,2H-perfluorododecanesul

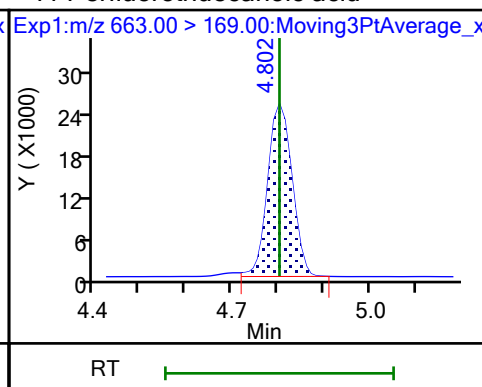
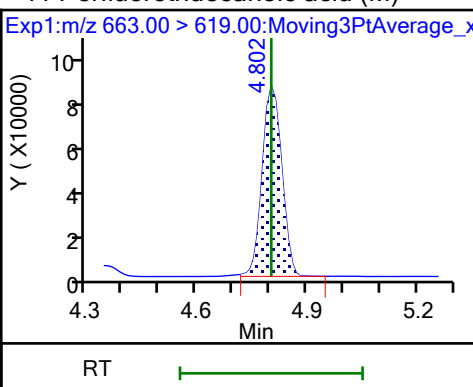
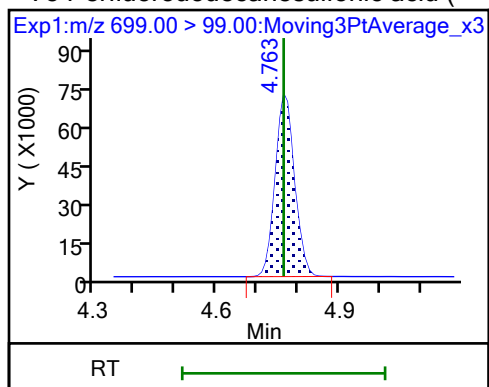
75 Perfluorododecanesulfonic acid (



75 Perfluorododecanesulfonic acid (

41 Perfluorotridecanoic acid (M)

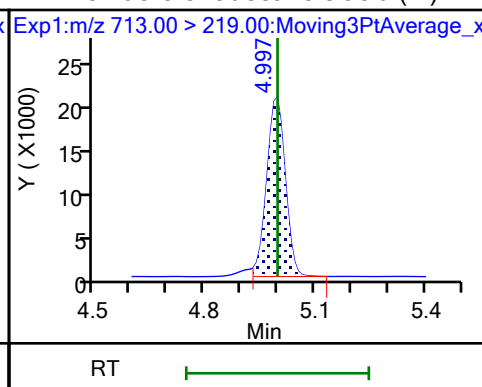
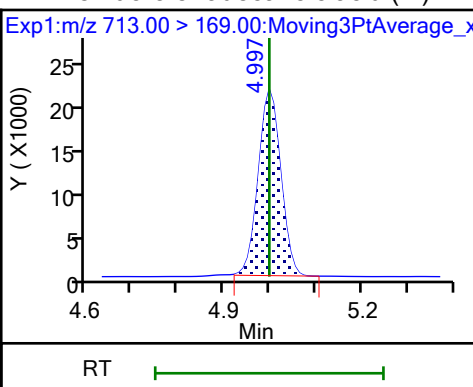
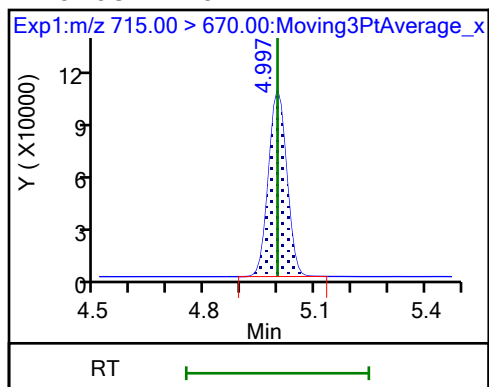
41 Perfluorotridecanoic acid



D 43 13C2 PFTeDA

42 Perfluorotetradecanoic acid (M)

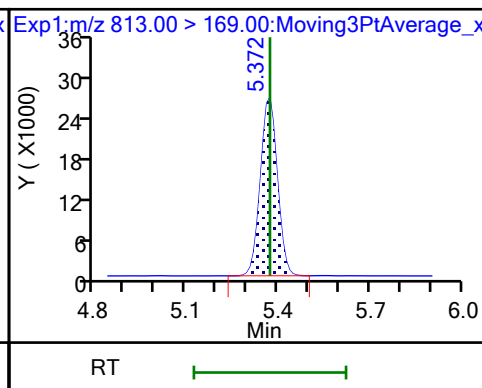
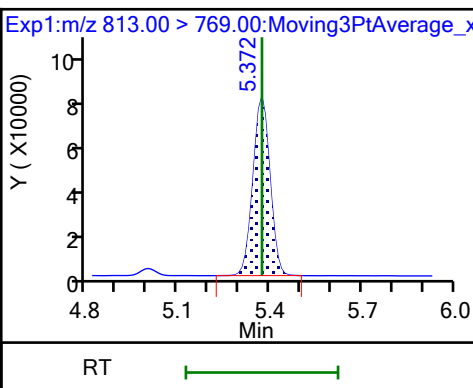
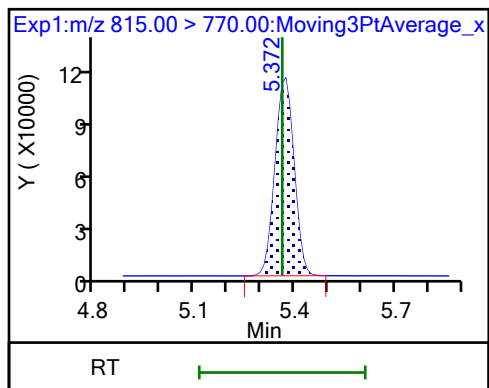
42 Perfluorotetradecanoic acid (M)



D 44 13C2 PFHxDA

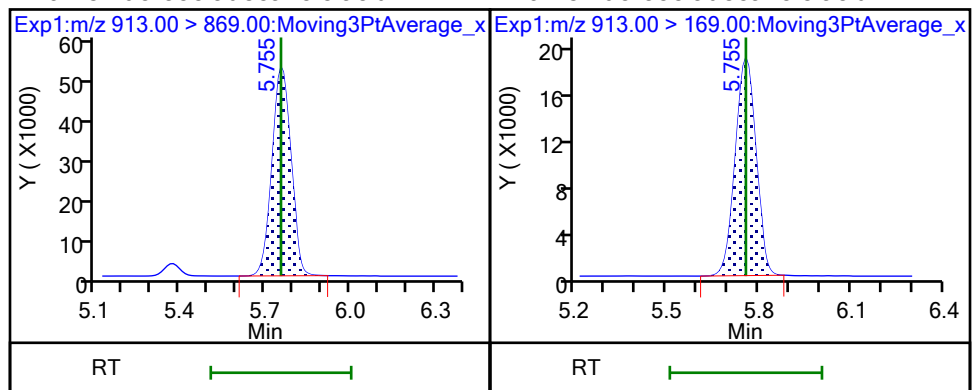
45 Perfluorohexadecanoic acid

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid

46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

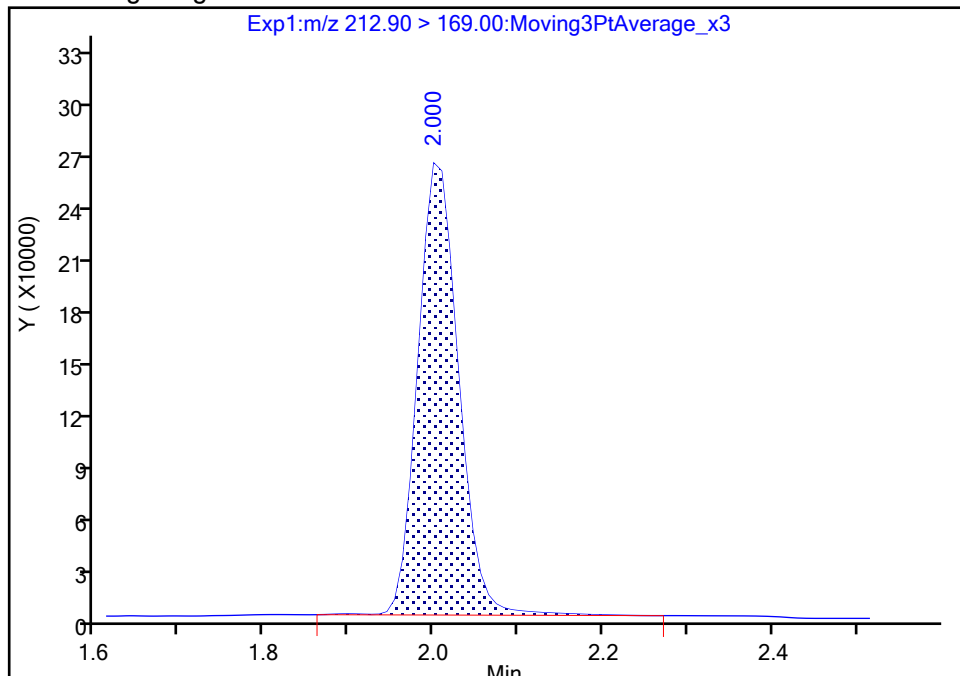
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Injection Date: 22-Sep-2020 20:28:29 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

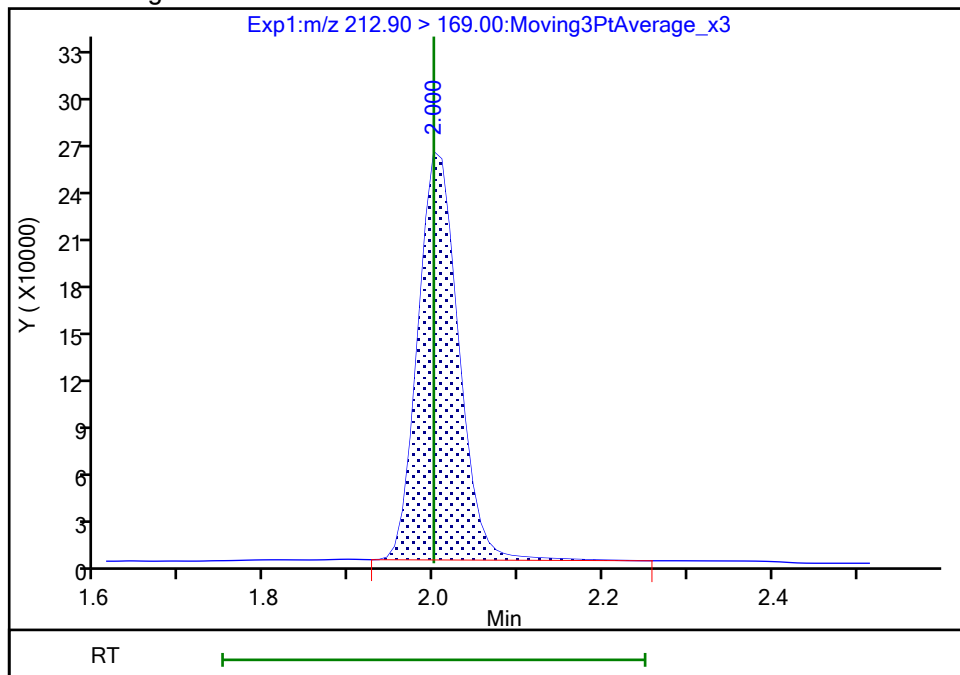
RT: 2.00
Area: 867460
Amount: 1.008181
Amount Units: ng/ml

Processing Integration Results



RT: 2.00
Area: 864051
Amount: 1.004219
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 10:15:03

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL12.d

Injection Date: 22-Sep-2020 20:28:29

Instrument ID: LC812

Lims ID: ICV

Client ID:

Operator ID: lc812tech

ALS Bottle#:

9

Worklist Smp#: 12

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

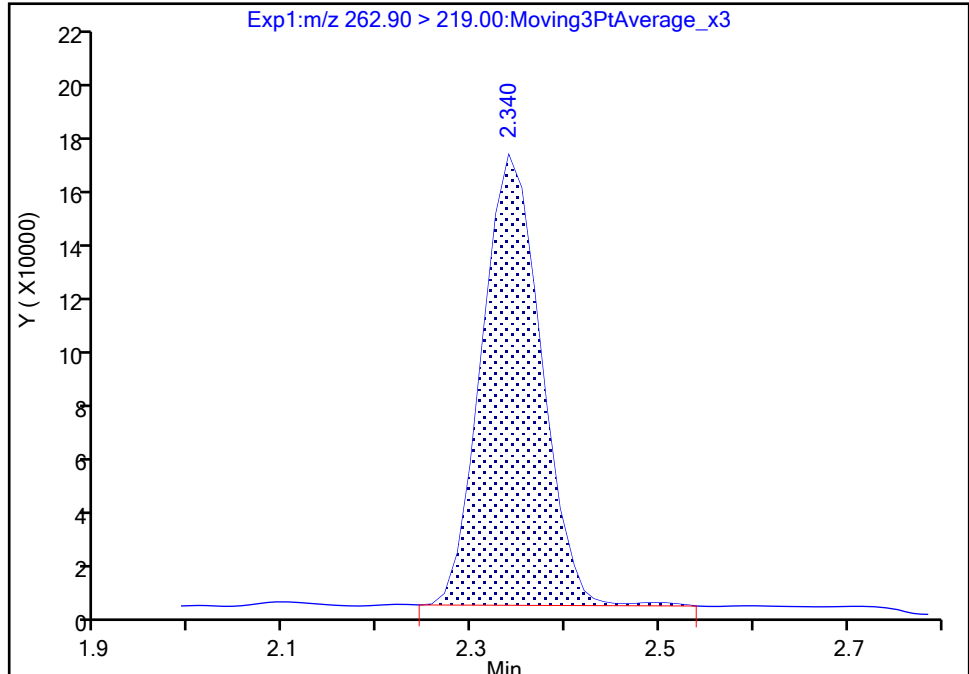
Detector: EXP1

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

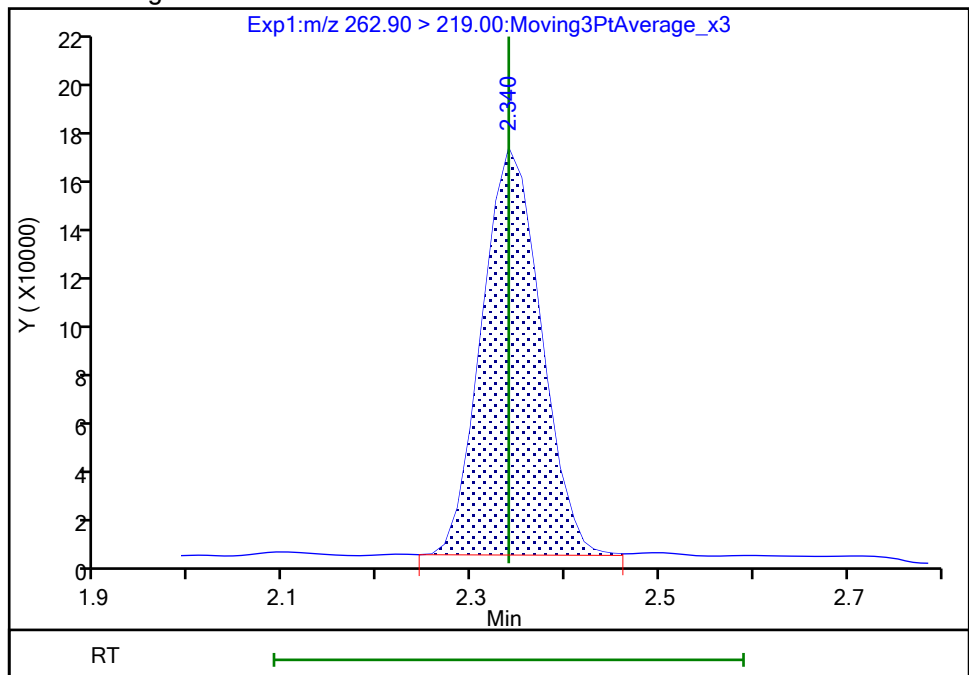
RT: 2.34
Area: 741243
Amount: 1.031896
Amount Units: ng/ml

Processing Integration Results



RT: 2.34
Area: 737460
Amount: 1.026629
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 10:15:10

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL12.d

Injection Date: 22-Sep-2020 20:28:29

Instrument ID: LC812

Lims ID: ICV

Client ID:

Operator ID: lc812tech

ALS Bottle#:

9

Worklist Smp#: 12

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

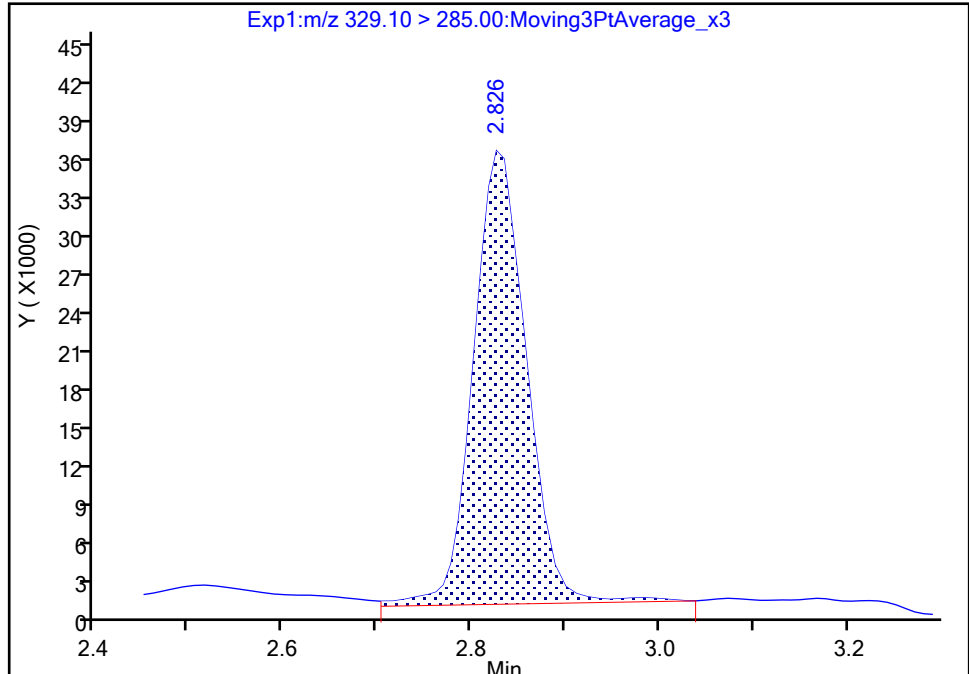
Detector: EXP1

67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

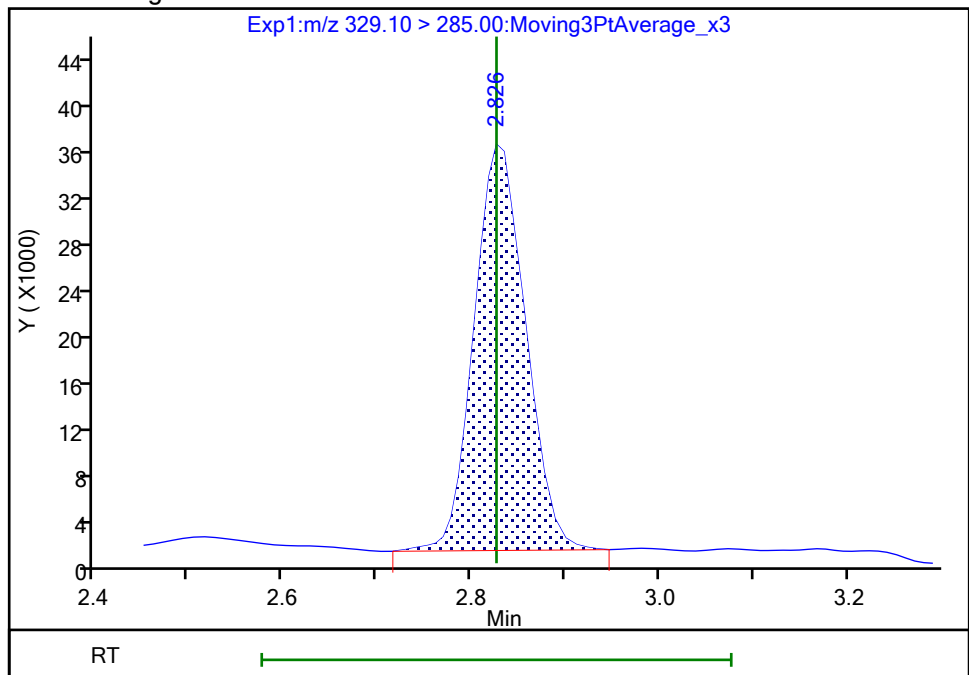
RT: 2.83
Area: 139164
Amount: 0.903019
Amount Units: ng/ml

Processing Integration Results



RT: 2.83
Area: 133453
Amount: 0.865961
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 10:15:27

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

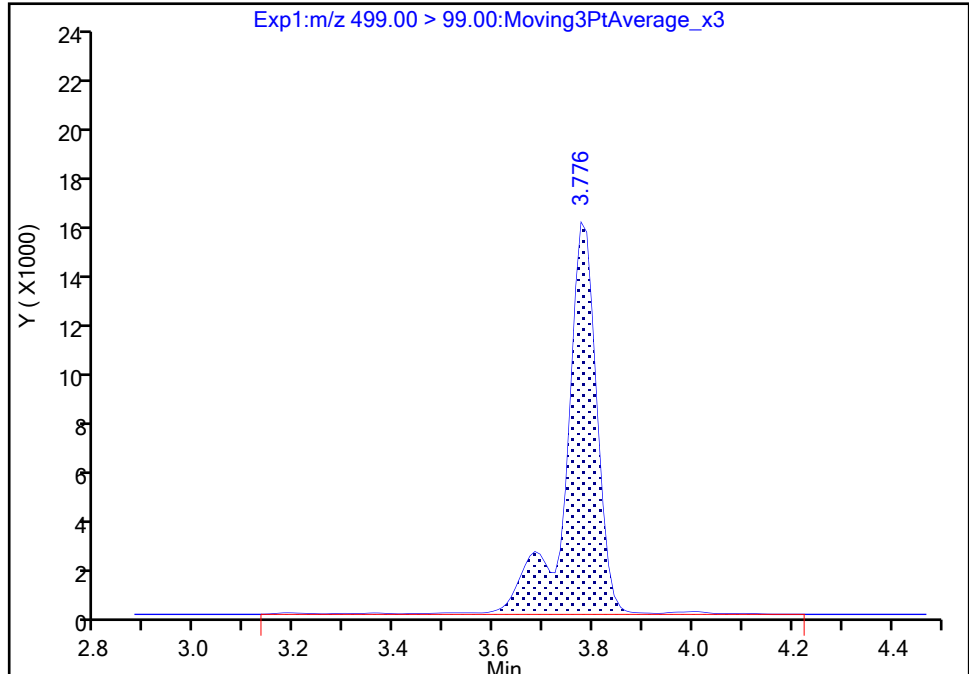
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Injection Date: 22-Sep-2020 20:28:29 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

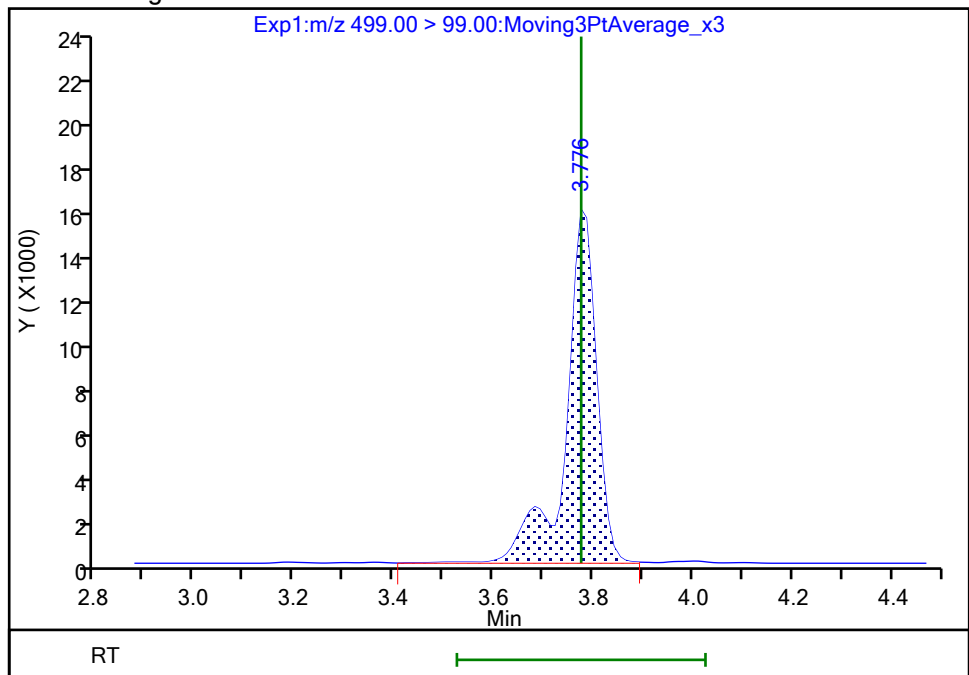
RT: 3.78
Area: 69871
Amount: 0.898380
Amount Units: ng/ml

Processing Integration Results



RT: 3.78
Area: 68757
Amount: 0.890113
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 10:15:59
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 626 of 906

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL12.d

Injection Date: 22-Sep-2020 20:28:29

Instrument ID: LC812

Lims ID: ICV

Client ID:

Operator ID: lc812tech

ALS Bottle#:

9

Worklist Smp#: 12

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

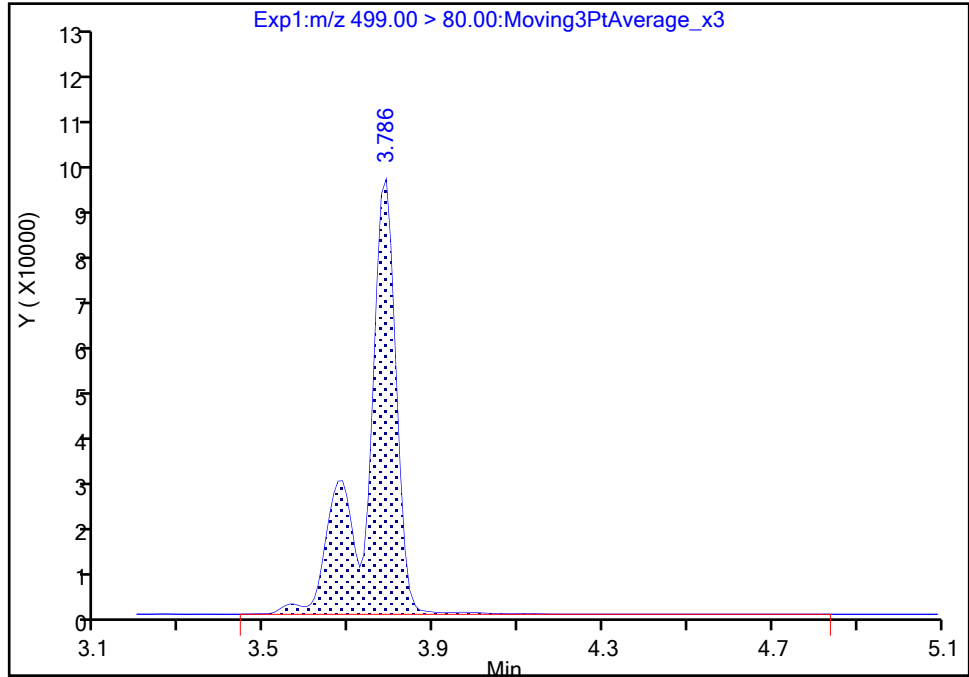
EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

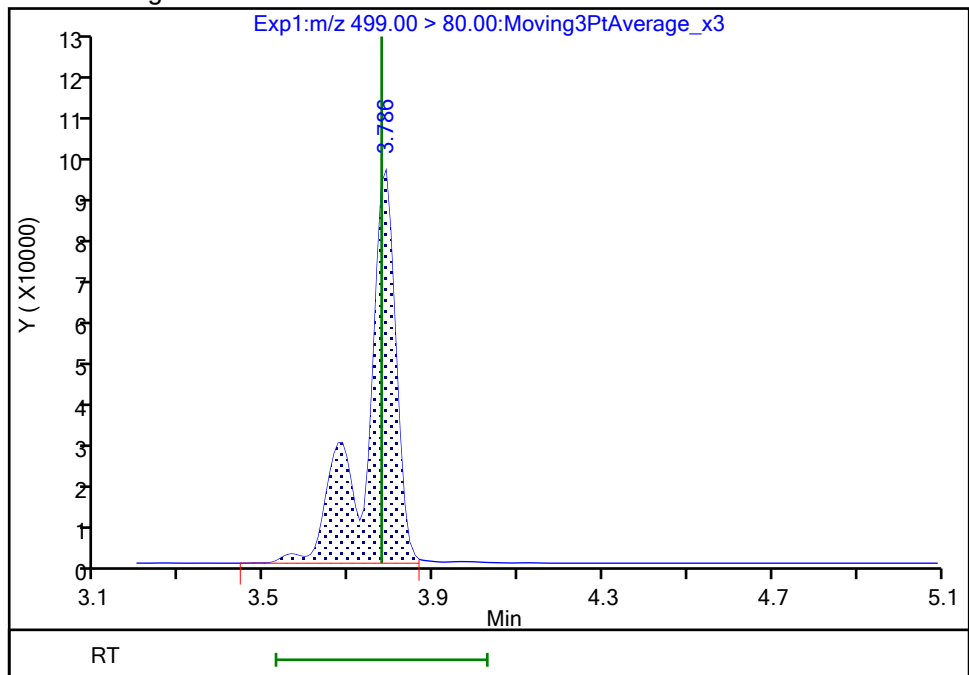
RT: 3.79
Area: 479278
Amount: 0.898380
Amount Units: ng/ml

Processing Integration Results



RT: 3.79
Area: 474868
Amount: 0.890113
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 10:16:10

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

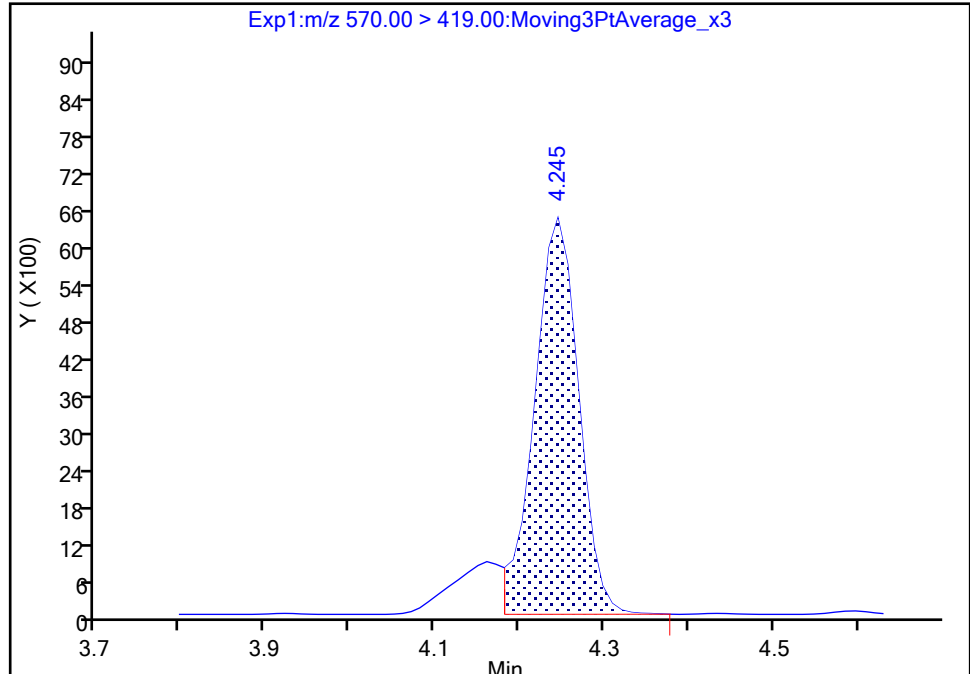
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL12.d
Injection Date: 22-Sep-2020 20:28:29 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

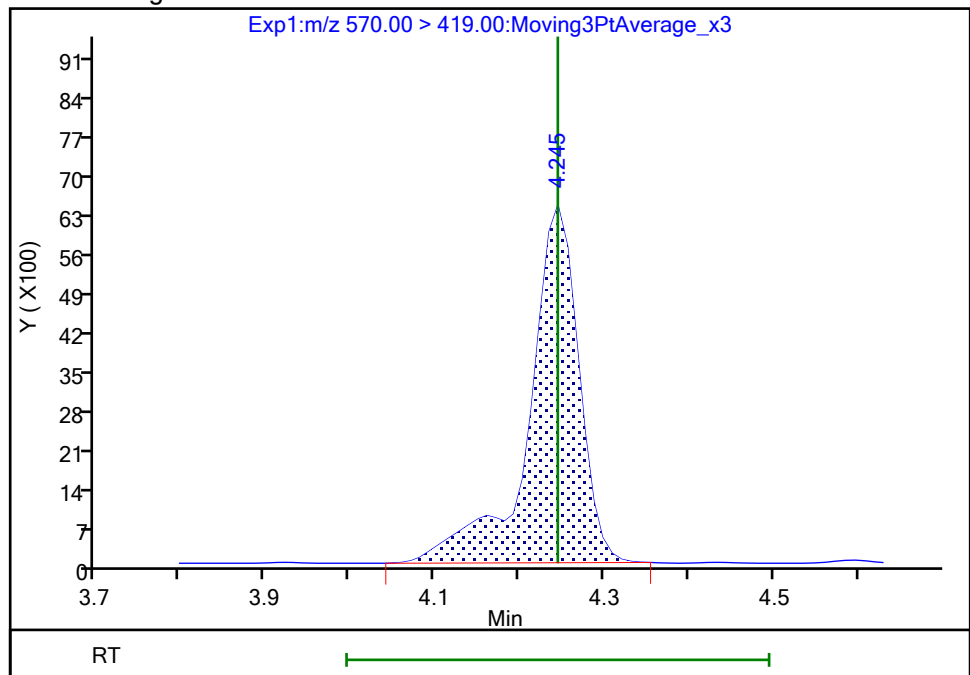
RT: 4.25
Area: 23242
Amount: 0.846607
Amount Units: ng/ml

Processing Integration Results



RT: 4.25
Area: 26606
Amount: 0.969143
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 10:16:25
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 628 of 906

Eurofins TestAmerica, Burlington

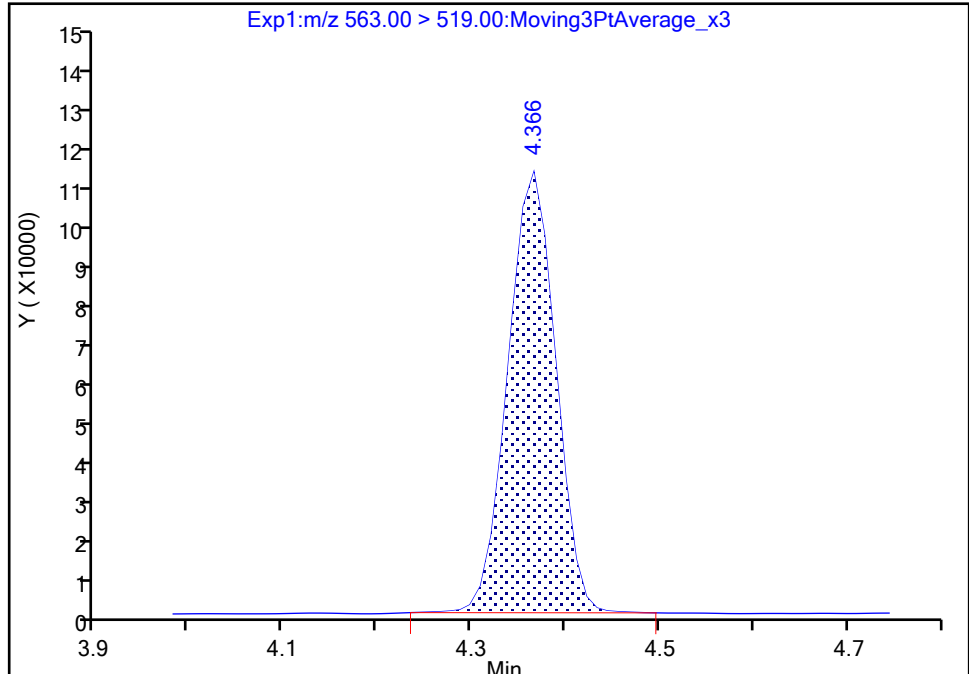
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL12.d
Injection Date: 22-Sep-2020 20:28:29 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

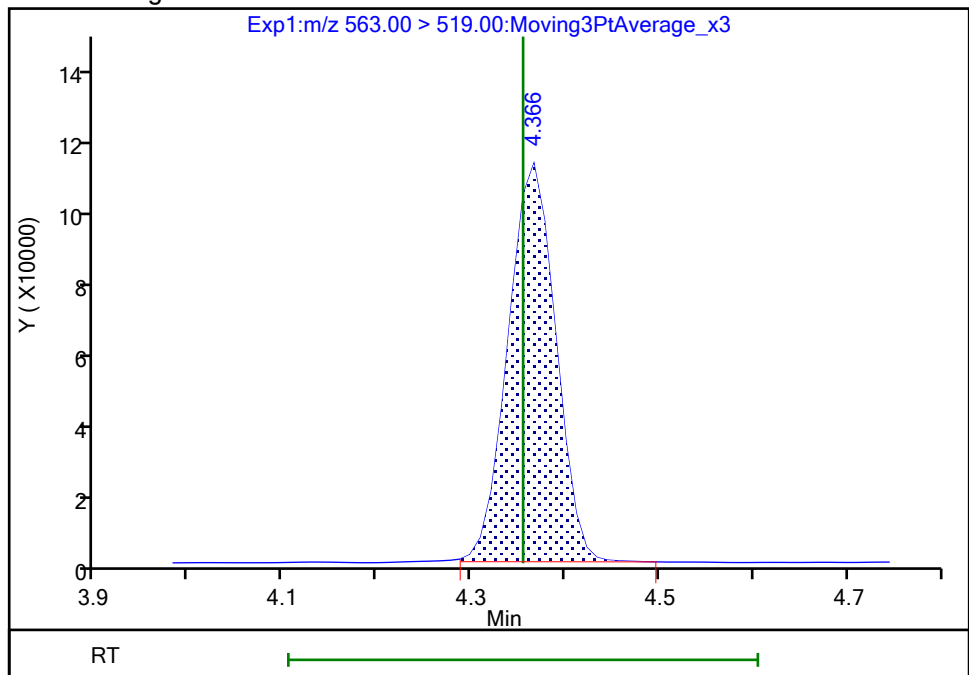
RT: 4.37
Area: 378232
Amount: 0.983639
Amount Units: ng/ml

Processing Integration Results



RT: 4.37
Area: 377469
Amount: 0.981654
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 10:16:34
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 629 of 906

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL12.d

Injection Date: 22-Sep-2020 20:28:29

Instrument ID: LC812

Lims ID: ICV

Client ID:

Operator ID: lc812tech

ALS Bottle#:

9

Worklist Smp#: 12

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

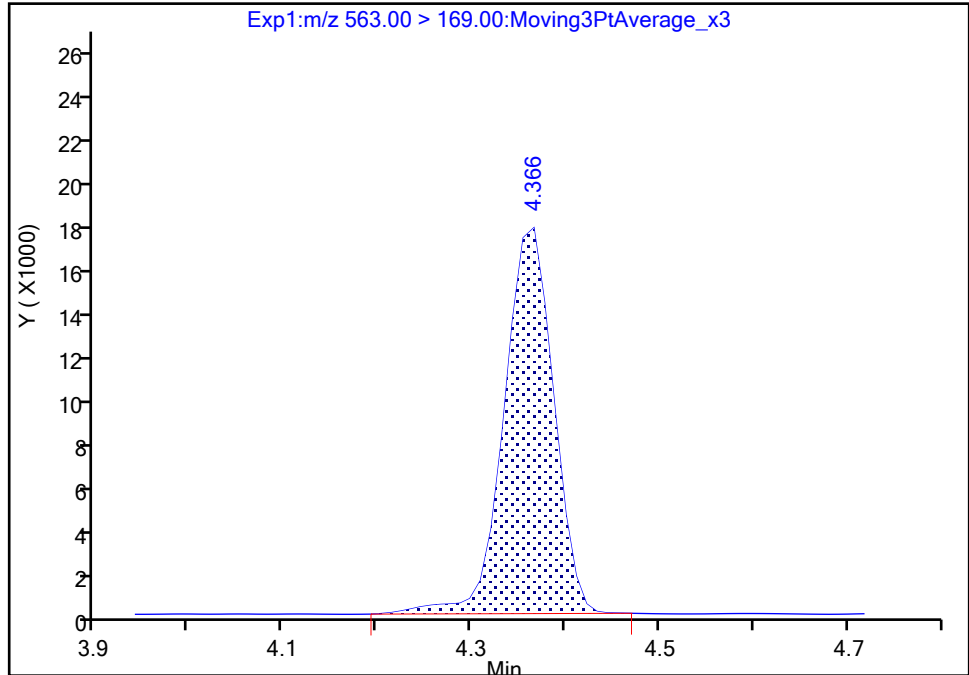
EXP1

31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

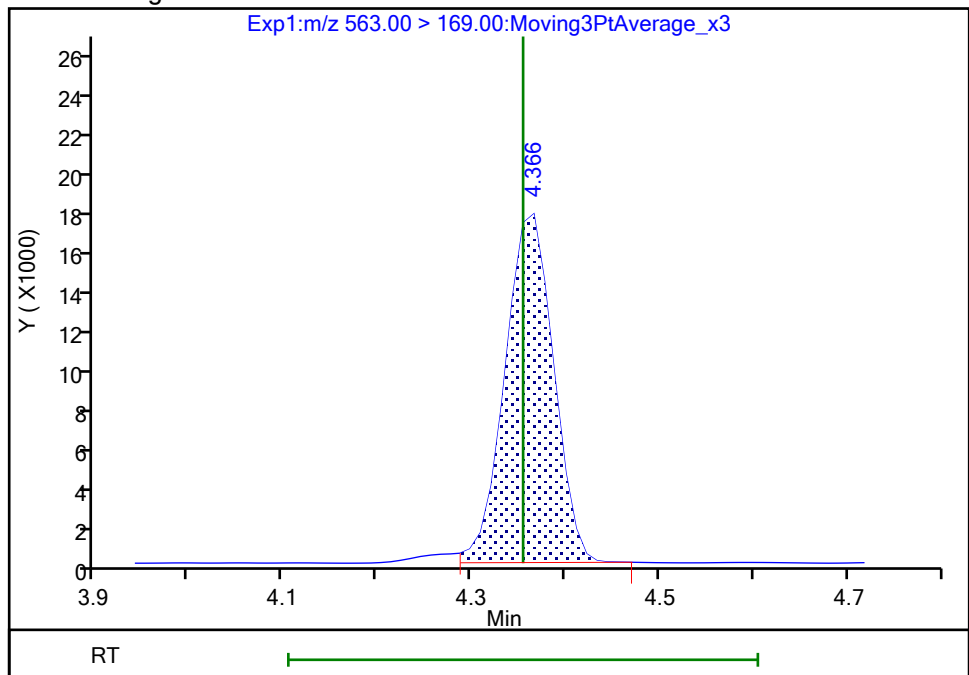
RT: 4.37
Area: 65352
Amount: 0.983639
Amount Units: ng/ml

Processing Integration Results



RT: 4.37
Area: 63902
Amount: 0.981654
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 10:16:37

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

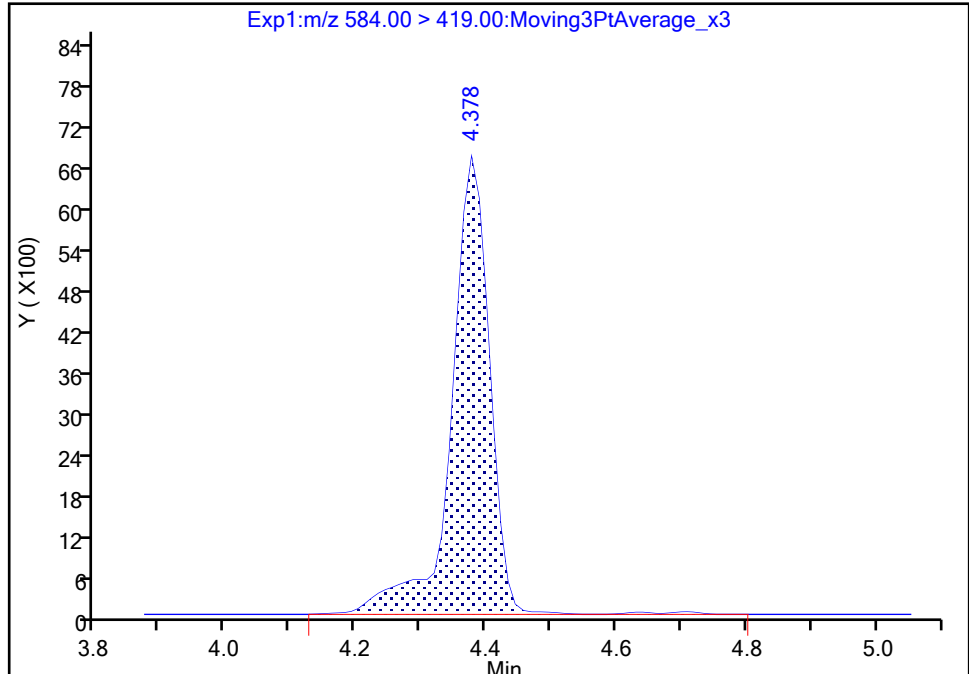
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL12.d
Injection Date: 22-Sep-2020 20:28:29 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

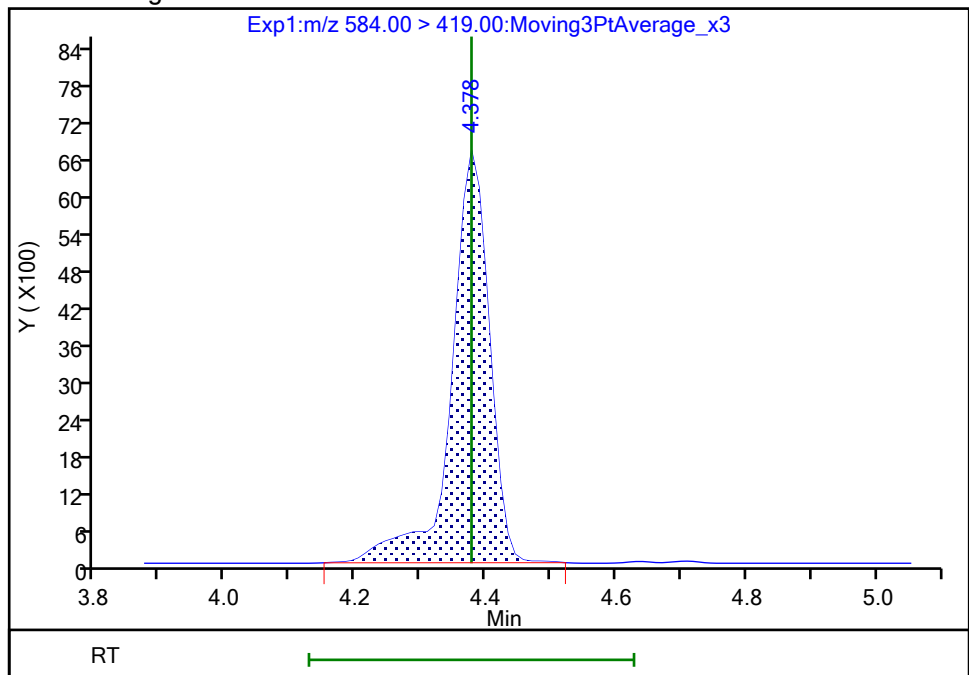
RT: 4.38
Area: 27441
Amount: 0.930709
Amount Units: ng/ml

Processing Integration Results



RT: 4.38
Area: 27079
Amount: 0.918431
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 10:16:44
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 631 of 906

Eurofins TestAmerica, Burlington

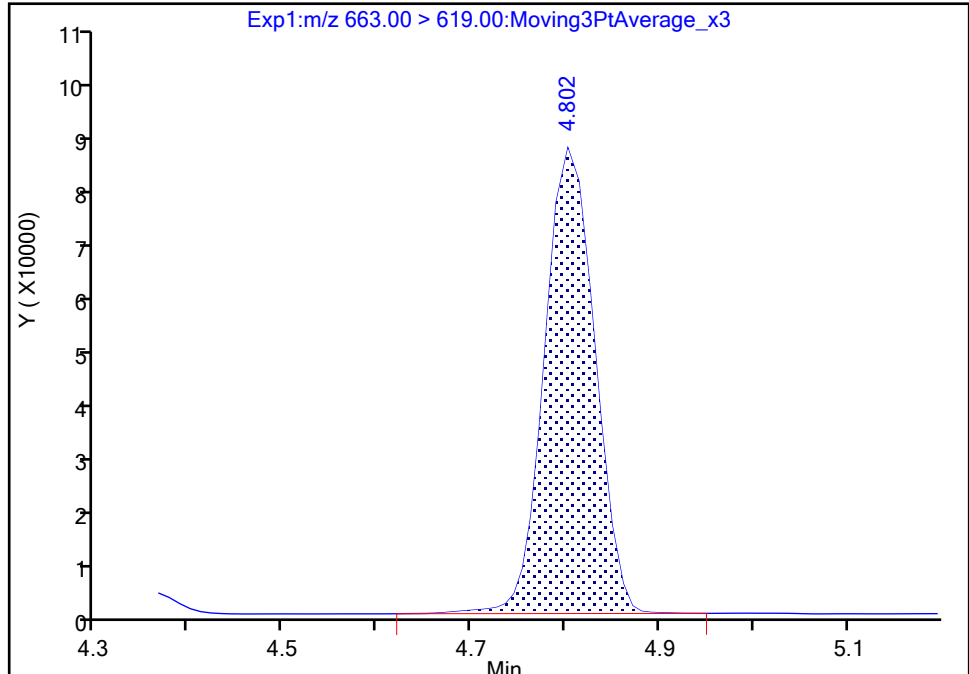
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL12.d
Injection Date: 22-Sep-2020 20:28:29 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

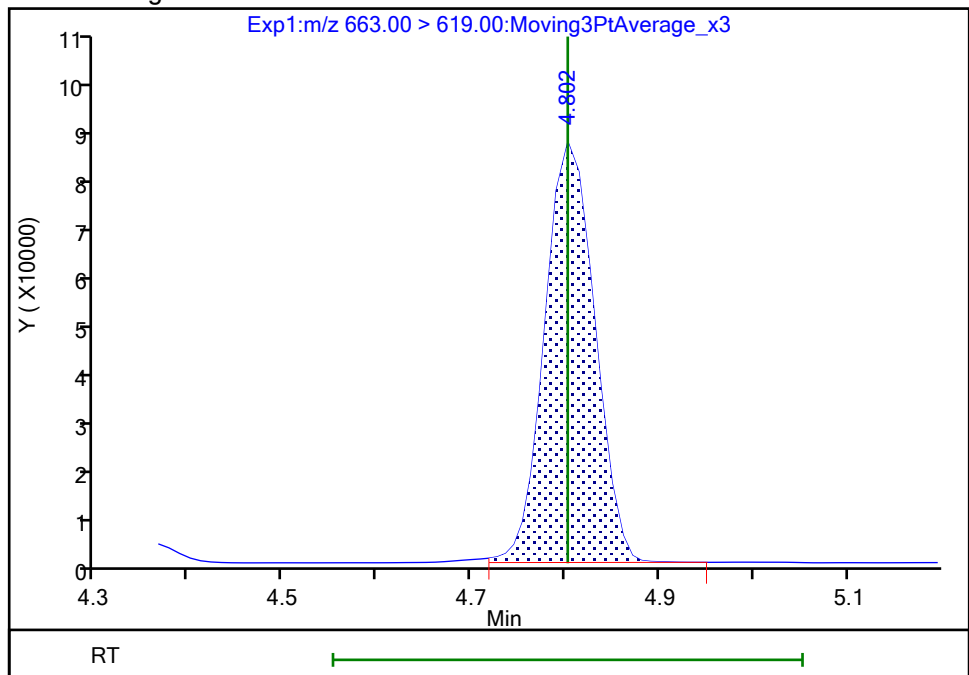
RT: 4.80
Area: 324913
Amount: 1.009498
Amount Units: ng/ml

Processing Integration Results



RT: 4.80
Area: 323186
Amount: 1.004132
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 10:17:03
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 632 of 906

Eurofins TestAmerica, Burlington

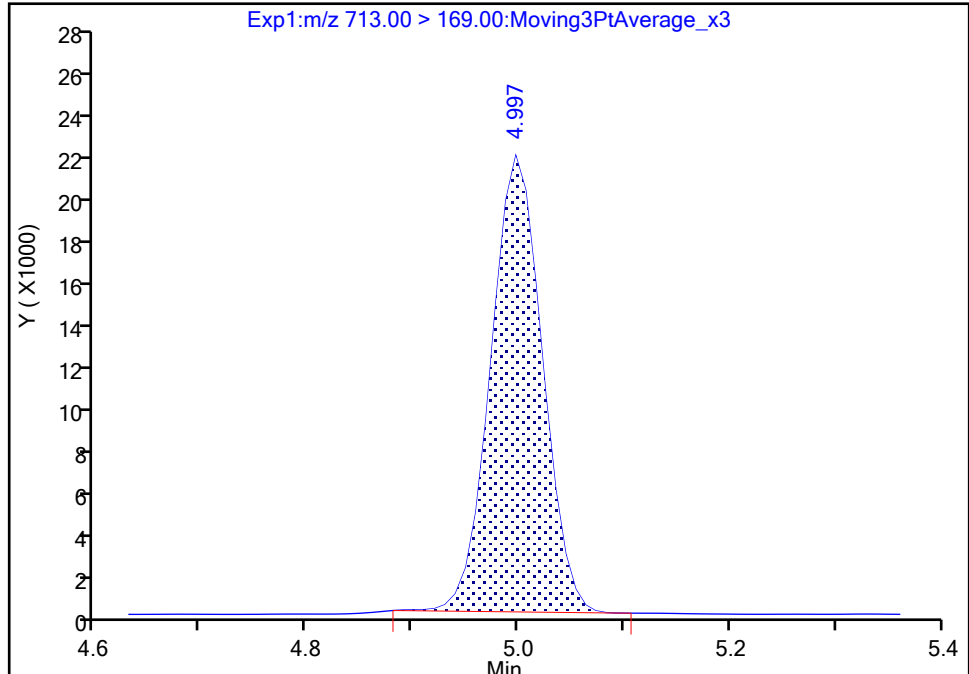
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL12.d
Injection Date: 22-Sep-2020 20:28:29 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

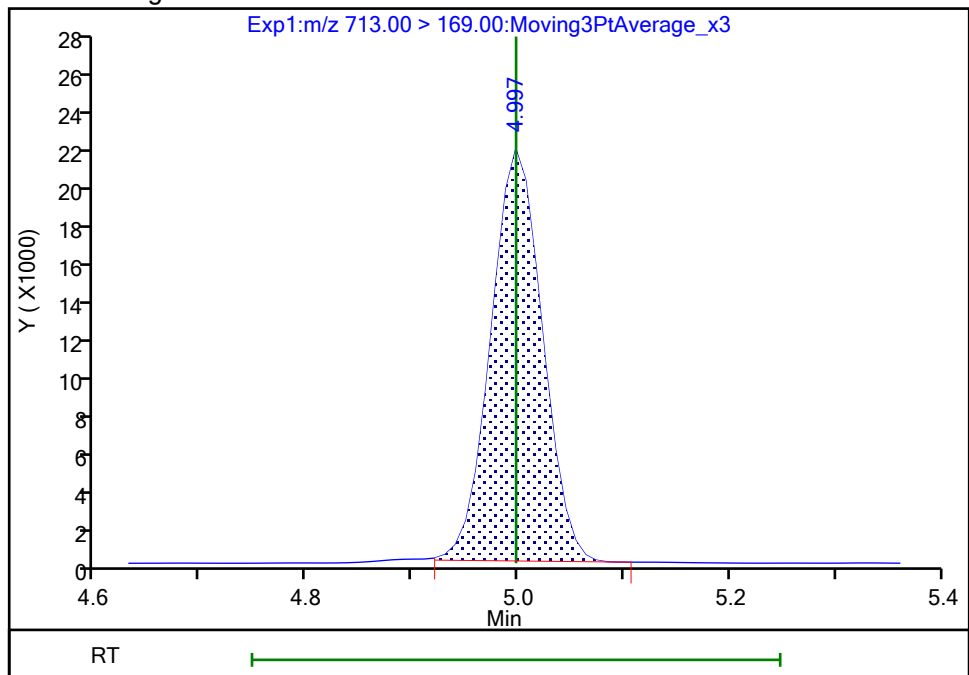
RT: 5.00
Area: 73790
Amount: 1.104928
Amount Units: ng/ml

Processing Integration Results



RT: 5.00
Area: 73661
Amount: 1.102997
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 10:17:11
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 633 of 906

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL12.d

Injection Date: 22-Sep-2020 20:28:29

Instrument ID: LC812

Lims ID: ICV

Client ID:

Operator ID: lc812tech

ALS Bottle#:

9

Worklist Smp#: 12

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

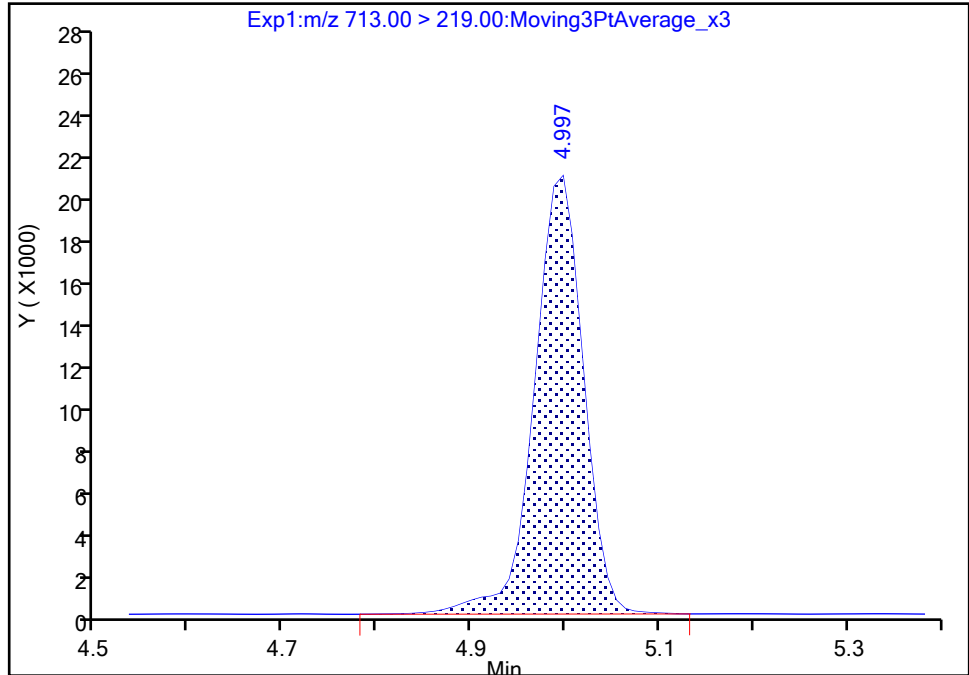
EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

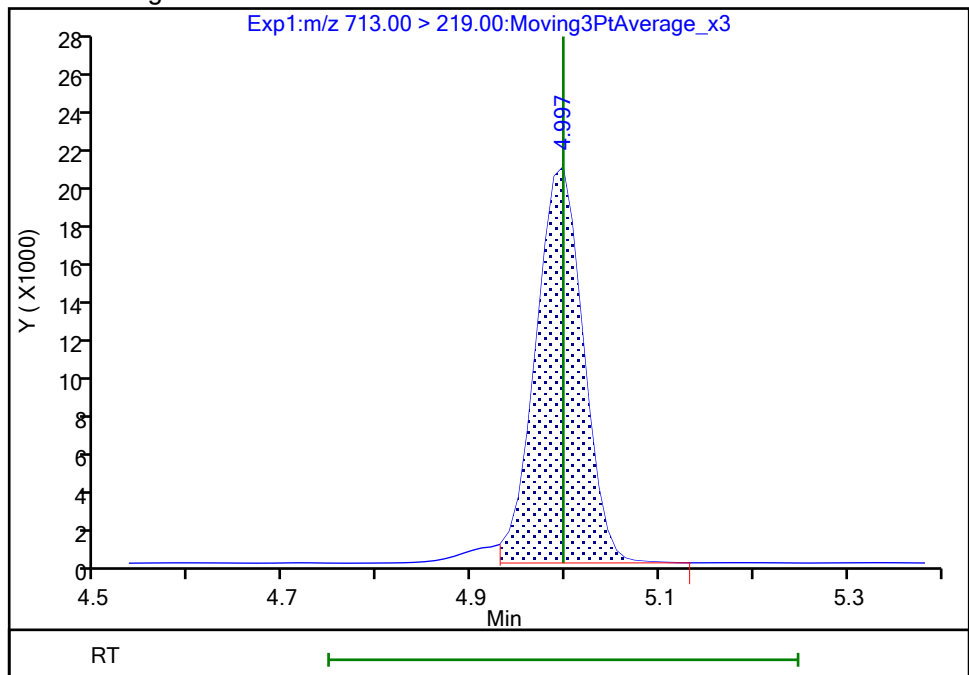
RT: 5.00
Area: 73988
Amount: 1.104928
Amount Units: ng/ml

Processing Integration Results



RT: 5.00
Area: 71553
Amount: 1.102997
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 10:17:14

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1

SDG No.: _____

Lab Sample ID: CCVL 200-160481/5 Calibration Date: 10/27/2020 17:22

Instrument ID: LC812 Calib Start Date: 09/22/2020 19:30

GC Column: C-18 ID: 4.60 (mm) Calib End Date: 09/22/2020 20:11

Lab File ID: PA201027A05.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9347	0.9710		0.130	0.125	3.9	50.0
Perfluoropentanoic acid (PFPeA)	AveID	1.056	1.270		0.0601	0.0500	20.2	50.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.996	1.085		0.0481	0.0442	8.9	50.0
1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	AveID	1.616	1.829		0.0528	0.0467	13.2	50.0
Perfluorohexanoic acid (PFHxA)	AveID	1.007	1.111		0.0551	0.0500	10.3	50.0
Perfluoropentanesulfonic acid	AveID	1.184	1.263		0.0500	0.0469	6.6	50.0
HFPO-DA	AveID	2.128	1.554		0.0730	0.100	-27.0	50.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.104	1.184		0.0488	0.0455	7.2	50.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.002	1.062		0.0530	0.0500	6.0	50.0
DONA	AveID	3.081	3.148		0.0481	0.0471	2.2	50.0
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	AveID	0.7981	0.8067		0.120	0.119	1.1	50.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.159	1.156		0.0475	0.0476	-0.2	50.0
Perfluorooctanoic acid (PFOA)	AveID	1.032	1.041		0.0504	0.0500	0.8	50.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.087	1.136		0.0485	0.0464	4.5	50.0
Perfluorononanoic acid (PFNA)	AveID	1.018	1.134		0.0557	0.0500	11.4	50.0
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	AveID	0.9564	0.9510		0.0463	0.0466	-0.6	50.0
Perfluorononanesulfonic acid	AveID	0.8588	0.9666		0.0540	0.0480	12.5	50.0
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	AveID	0.3958	0.3834		0.0464	0.0479	-3.1	50.0
Perfluorodecanoic acid (PFDA)	AveID	0.9894	0.9113		0.0461	0.0500	-7.9	50.0
Perfluorooctanesulfonamide (PFOSA)	AveID	0.9348	1.029		0.0551	0.0500	10.1	50.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.9437	1.172		0.155	0.125	24.2	50.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.7186	0.7117		0.0477	0.0482	-1.0	50.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.9863	1.040		0.0527	0.0500	5.5	50.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.9155	1.117		0.152	0.125	22.0	50.0
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	AveID	0.8250	0.7460		0.0426	0.0471	-9.6	50.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9752	1.169		0.0599	0.0500	19.8	50.0
10:2 FTS	AveID	0.2199	0.2236		0.0490	0.0482	1.7	50.0
Perfluorododecanesulfonic acid (PFDoS)	AveID	0.2306	0.2202		0.0462	0.0484	-4.5	50.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.8282	1.014		0.0612	0.0500	22.5	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2290	0.2810		0.0613	0.0500	22.7	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Lab Sample ID: CCVL 200-160481/5 Calibration Date: 10/27/2020 17:22
 Instrument ID: LC812 Calib Start Date: 09/22/2020 19:30
 GC Column: C-18 ID: 4.60 (mm) Calib End Date: 09/22/2020 20:11
 Lab File ID: PA201027A05.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		1.240		0.0479	0.0500	-4.2	50.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	0.7473	0.8897		0.0595	0.0500	19.0	50.0
13C4 PFBA	Ave	1.433	1.536		1.34	1.25	7.2	50.0
13C5 PFPeA	Ave	1.027	1.069		1.30	1.25	4.0	50.0
13C3 PFBS	Ave	1.251	1.272		1.18	1.16	1.7	50.0
M2-4:2 FTS	Ave	0.0939	0.0992		1.23	1.17	5.6	50.0
13C2 PFHxA	Ave	1.058	1.134		1.34	1.25	7.2	50.0
13C3 HFPO-DA	Ave	0.0985	0.1620		2.05	1.25	64.4*	50.0
18O2 PFHxS	Ave	0.8974	0.9434		1.24	1.18	5.1	50.0
13C4 PFHpA	Ave	0.9620	1.001		1.30	1.25	4.1	50.0
M2-6:2 FTS	Ave	0.1199	0.1235		1.22	1.19	3.0	50.0
13C4 PFOA	Ave	0.9845	1.004		1.27	1.25	2.0	50.0
13C4 PFOS	Ave	0.7341	0.7986		1.30	1.20	8.8	50.0
13C5 PFNA	Ave	0.8296	0.7617		1.15	1.25	-8.2	50.0
13C2 PFDA	Ave	0.7956	0.8059		1.27	1.25	1.3	50.0
M2-8:2 FTS	Ave	0.1413	0.1507		1.28	1.20	6.7	50.0
13C8 FOSA	Ave	1.282	1.341		1.31	1.25	4.6	50.0
d3-NMeFOSAA	Ave	0.0453	0.0411		1.14	1.25	-9.2	50.0
13C2 PFUnA	Ave	0.6006	0.5793		1.21	1.25	-3.5	50.0
d5-NEtFOSAA	Ave	0.0487	0.0444		1.14	1.25	-8.9	50.0
13C2 PFDoA	Ave	0.6348	0.5332		1.05	1.25	-16.0	50.0
13C2 PFTeDA	Ave	0.4522	0.4048		1.12	1.25	-10.5	50.0
13C2 PFHxDA	Ave	0.5124	0.4505		1.10	1.25	-12.1	50.0

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A05.d
 Lims ID: CCVL
 Client ID:
 Sample Type: CCVL
 Inject. Date: 27-Oct-2020 17:22:13 ALS Bottle#: 2 Worklist Smp#: 5
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: CCVL
 Misc. Info.: 200-0043412-005 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Sublist: chrom-PFC_LC812*sub3
 Method: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 28-Oct-2020 13:19:12 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1652

First Level Reviewer: chirgwinb

Date: 27-Oct-2020 17:47:14

Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.990	1.981	0.009	0.576	911445	1.34		107	15635	
2 Perfluorobutanoic acid										
212.90 > 169.00	1.990	1.990	0.0	1.000	88497	0.1298		104	36.3	
D 3 13C5 PFPeA										
267.90 > 223.00	2.326	2.326	0.0	0.672	633976	1.30		104	4215	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.326	2.326	0.0	1.000	32194	0.0601		120	2.9	M
D 47 13C3 PFBS										
301.90 > 80.00	2.353	2.339	0.014	0.680	701790	1.18		102	260400	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.353	2.353	0.0	1.000	28945	0.0481	Target=2.07	109	139	
298.90 > 99.00	2.353	2.353	0.0	1.000	15072		1.92(1.04-3.11)		37.1	
D 60 M2-4:2 FTS										M
329.00 > 81.00	2.665	2.665	0.0	0.771	54956	1.23		106	117	M
61 1H,1H,2H,2H-perfluorohexanesulfo										M
327.00 > 307.00	2.665	2.665	0.0	1.000	4020	0.0528		113	53.7	M
D 7 13C2 PFHxA										
315.00 > 270.00	2.703	2.703	0.0	0.782	672888	1.34		107	2732	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.703	2.703	0.0	1.000	29893	0.0551	Target=12.44	110	18.9	
313.00 > 119.00	2.703	2.703	0.0	1.000	2653		11.27(6.22-18.66)		7.1	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.716	2.703	0.013	0.881	26516	0.0500	Target=3.64	107	148	
349.00 > 99.00	2.716	2.703	0.013	0.881	7740		3.43(1.82-5.46)		40.1	
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.818	2.810	0.008	0.815	96092	2.05		164	1230	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
67 Perfluoro(2-propoxypropanoic) ac										M
329.10 > 285.00	2.826	2.818	0.008	1.003	11947	0.0730		73.0	5.8	M
D 11 18O2 PFHxS										
403.00 > 84.00	3.084	3.084	0.0	0.892	529450	1.24		105	2441	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.084	3.084	0.0	1.000	24128	0.0488	Target=4.60	107	103	M
399.00 > 99.00	3.084	3.084	0.0	1.000	6168		3.91(2.30-6.91)		11.7	M
D 9 13C4 PFHpA										
367.00 > 322.00	3.096	3.084	0.012	0.895	593934	1.30		104	4364	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.096	3.084	0.012	1.000	25238	0.0530	Target=3.34	106	15.0	
363.00 > 169.00	3.096	3.084	0.012	1.000	7435		3.39(1.67-5.01)		38.2	
77 DONA										
377.00 > 251.00	3.131	3.124	0.007	0.830	56198	0.0481	Target=2.44	102	182	
377.00 > 85.00	3.131	3.124	0.007	0.830	25910		2.17(1.22-3.67)		107	
16 Perfluoroheptanesulfonic acid										M
449.00 > 80.00	3.450	3.441	0.009	0.914	20855	0.0475	Target=7.08	99.8	173	
449.00 > 99.00	3.450	3.441	0.009	0.914	3699		5.64(3.54-10.63)		66.3	M
D 12 M2-6:2 FTS										
429.00 > 81.00	3.450	3.441	0.009	0.997	69623	1.22		103	442	
13 1H,1H,2H,2H-perfluorooctanesulfo										
427.00 > 407.00	3.450	3.441	0.009	1.000	5605	0.1198		101	174	
D 14 13C4 PFOA										
417.00 > 372.00	3.458	3.450	0.008	1.000	595588	1.27		102	3241	
* 62 13C2 PFOA										
415.00 > 370.00	3.458	3.450	0.008		593273	1.25			3261	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.458	3.458	0.0	1.000	24791	0.0504	Target=2.29	101	22.1	M
413.00 > 169.00	3.458	3.458	0.0	1.000	12466		1.99(1.14-3.43)		55.6	M
D 18 13C4 PFOS										
503.00 > 80.00	3.775	3.765	0.010	1.092	452963	1.30		109	2452	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.775	3.765	0.010	1.000	19975	0.0485	Target=7.10	105	21.7	M
499.00 > 99.00	3.775	3.765	0.010	1.000	3609		5.53(3.55-10.64)		25.3	M
D 19 13C5 PFNA										
468.00 > 423.00	3.796	3.786	0.010	1.098	451873	1.15		91.8	3263	
20 Perfluorononanoic acid										
463.00 > 419.00	3.796	3.786	0.010	1.000	20503	0.0557	Target=5.83	111	8.9	
463.00 > 169.00	3.796	3.786	0.010	1.000	3485		5.88(2.91-8.74)		70.4	
69 9-Chlorohexadecafluoro-3-oxanona										
531.00 > 351.00	3.931	3.922	0.009	1.041	16798	0.0463		99.4	231	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.061	4.052	0.009	1.076	17586	0.0540	Target=3.38	113	158	
549.00 > 99.00	4.061	4.052	0.009	1.076	4432		3.97(1.69-5.08)		39.6	
D 23 13C2 PFDA										
515.00 > 470.00	4.081	4.082	-0.001	1.180	478101	1.27		101	4012	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
24 Perfluorodecanoic acid										
513.00 > 469.00	4.091	4.082	0.009	1.002	17427	0.0461	Target=6.81	92.1	38.8	
513.00 > 169.00	4.081	4.082	-0.001	1.000	3600		4.84(3.41-10.22)		41.6	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.091	4.092	-0.001	1.183	85677	1.28		107	275	
25 1H,1H,2H,2H-perfluorodecanesulfo										
527.00 > 507.00	4.091	4.092	-0.001	1.000	1314	0.0464		96.9	26.8	M
D 21 13C8 FOSA										
506.00 > 78.00	4.150	4.139	0.011	1.200	795541	1.31		105	2712	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.150	4.139	0.011	1.000	32757	0.0551		110	175	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.225	4.214	0.011	1.222	24401	1.14		90.8	725	
28 N-methylperfluorooctanesulfonami										
570.00 > 419.00	4.235	4.224	0.011	1.002	2861	0.1553		124	54.8	M
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.321	4.309	0.012	1.145	13002	0.0477	Target=3.31	99.0	95.0	
599.00 > 99.00	4.310	4.309	0.001	1.142	4095		3.18(1.66-4.97)		23.8	M
D 30 13C2 PFUnA										
565.00 > 520.00	4.344	4.343	0.001	1.256	343707	1.21		96.5	3635	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.344	4.343	0.001	1.000	14301	0.0527	Target=6.57	105	34.4	M
563.00 > 169.00	4.344	4.343	0.001	1.000	2408		5.94(3.28-9.85)		54.2	M
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.355	4.343	0.012	1.259	26313	1.14		91.1	424	
33 N-ethylperfluorooctanesulfonamid										
584.00 > 419.00	4.367	4.355	0.012	1.003	2938	0.1524		122	93.6	M
66 11-Chloroeicosafuoro-3-oxaundec										
631.00 > 451.00	4.434	4.422	0.012	1.174	13319	0.0426		90.4	552	
D 36 13C2 PFDaA										
615.00 > 570.00	4.573	4.561	0.012	1.322	316354	1.05		84.0	4264	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.573	4.561	0.012	1.000	14788	0.0599	Target=5.16	120	23.0	M
613.00 > 169.00	4.573	4.561	0.012	1.000	2978		4.97(2.58-7.75)		63.3	
74 1H,1H,2H,2H-perfluorododecanesul										
627.00 > 607.00	4.598	4.585	0.013	1.124	771	0.0490		102	31.1	M
75 Perfluorododecanesulfonic acid (										
699.00 > 80.00	4.745	4.736	0.009	1.257	4040	0.0462	Target=0.45	95.5	25.2	
699.00 > 99.00	4.745	4.736	0.009	1.257	9093		0.44(0.22-0.67)		65.9	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.781	4.772	0.009	1.045	12836	0.0612	Target=3.30	122	17.6	M
663.00 > 169.00	4.781	4.772	0.009	1.045	3544		3.62(1.65-4.95)		109	M
D 43 13C2 PFTeDA										
715.00 > 670.00	4.978	4.969	0.009	1.440	240150	1.12		89.5	2179	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.978	4.969	0.009	1.000	2699	0.0613	Target=1.06	123	70.5	M
713.00 > 219.00	4.969	4.969	0.0	0.998	2614		1.03(0.53-1.59)		142	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 44 13C2 PFHxDA										
815.00 > 770.00	5.340	5.329	0.011	1.544	267281	1.10		87.9	3144	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.340	5.329	0.011	1.000	13254	0.0479	Target=3.06	95.8	16.4	
813.00 > 169.00	5.340	5.329	0.011	1.000	4425		3.00(1.53-4.58)		213	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.703	5.694	0.009	1.068	9512	0.0595	Target=2.82	119	27.9	
913.00 > 169.00	5.703	5.694	0.009	1.068	3390		2.81(1.41-4.24)		140	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

PFAS32NCLOQV_00010

Amount Added: 100.00

Units: uL

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A05.d

Injection Date: 27-Oct-2020 17:22:13

Instrument ID: LC812

Lims ID: CCVL

Client ID:

Operator ID: lc812tech

ALS Bottle#: 2

Worklist Smp#: 5

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

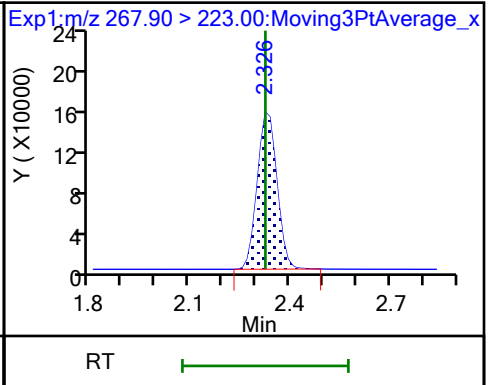
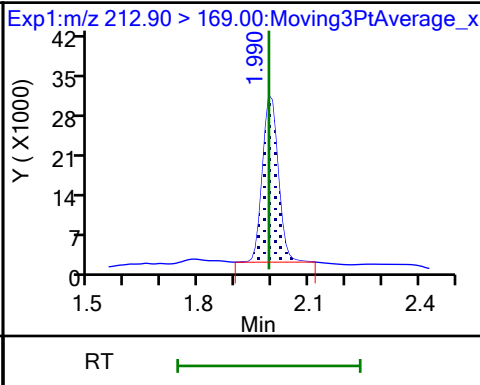
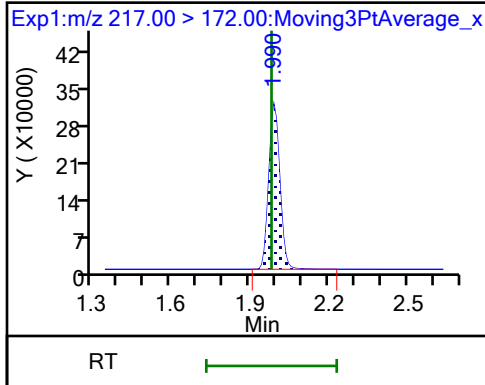
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid

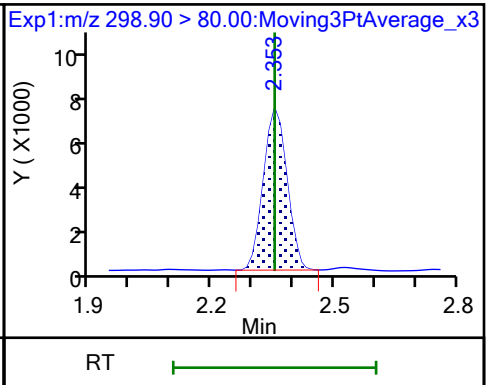
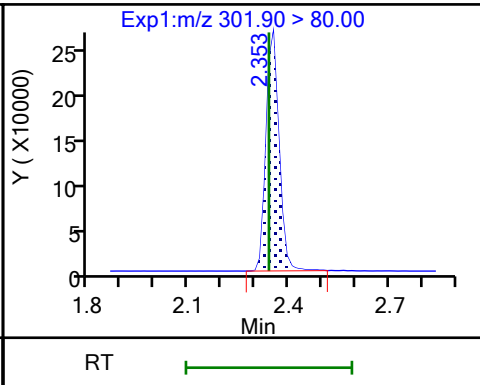
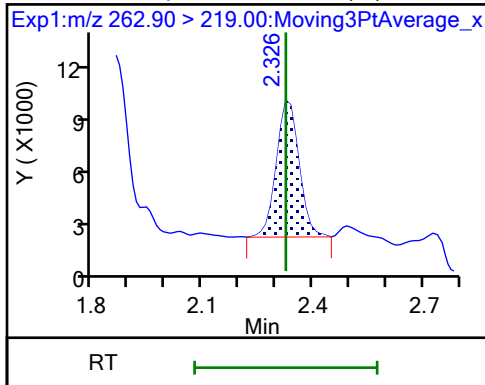
D 3 13C5 PFPeA



4 Perfluoropentanoic acid (M)

D 47 13C3 PFBS

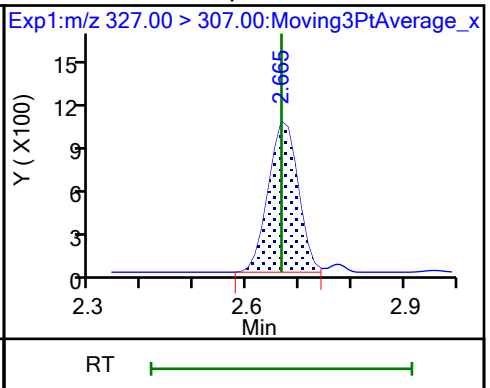
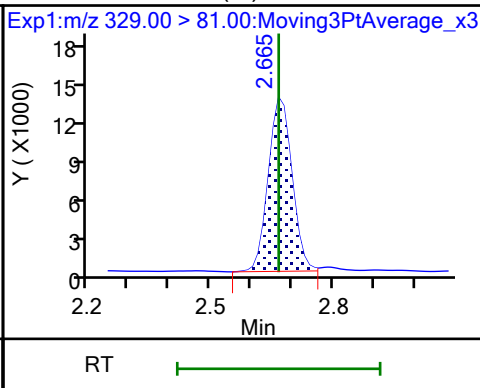
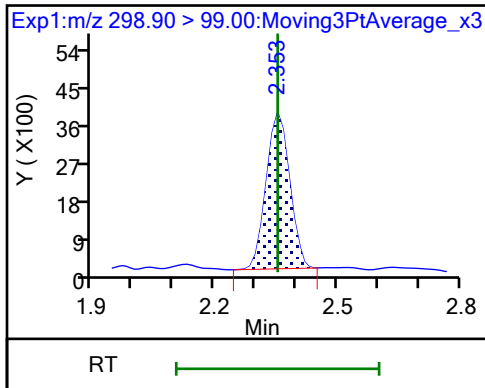
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

D 60 M2-4:2 FTS (M)

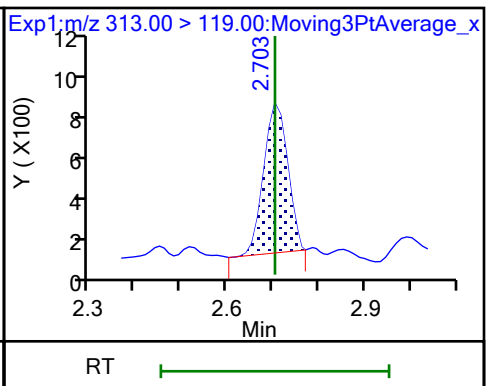
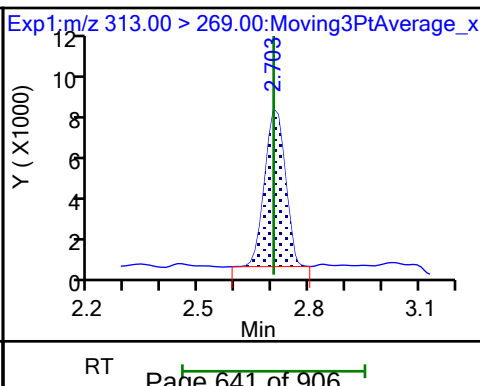
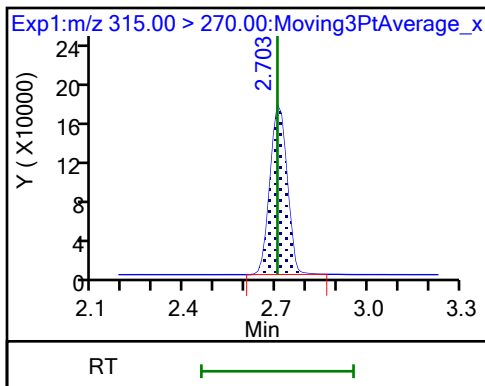
61 1H,1H,2H,2H-perfluorohexanesulfo (M)

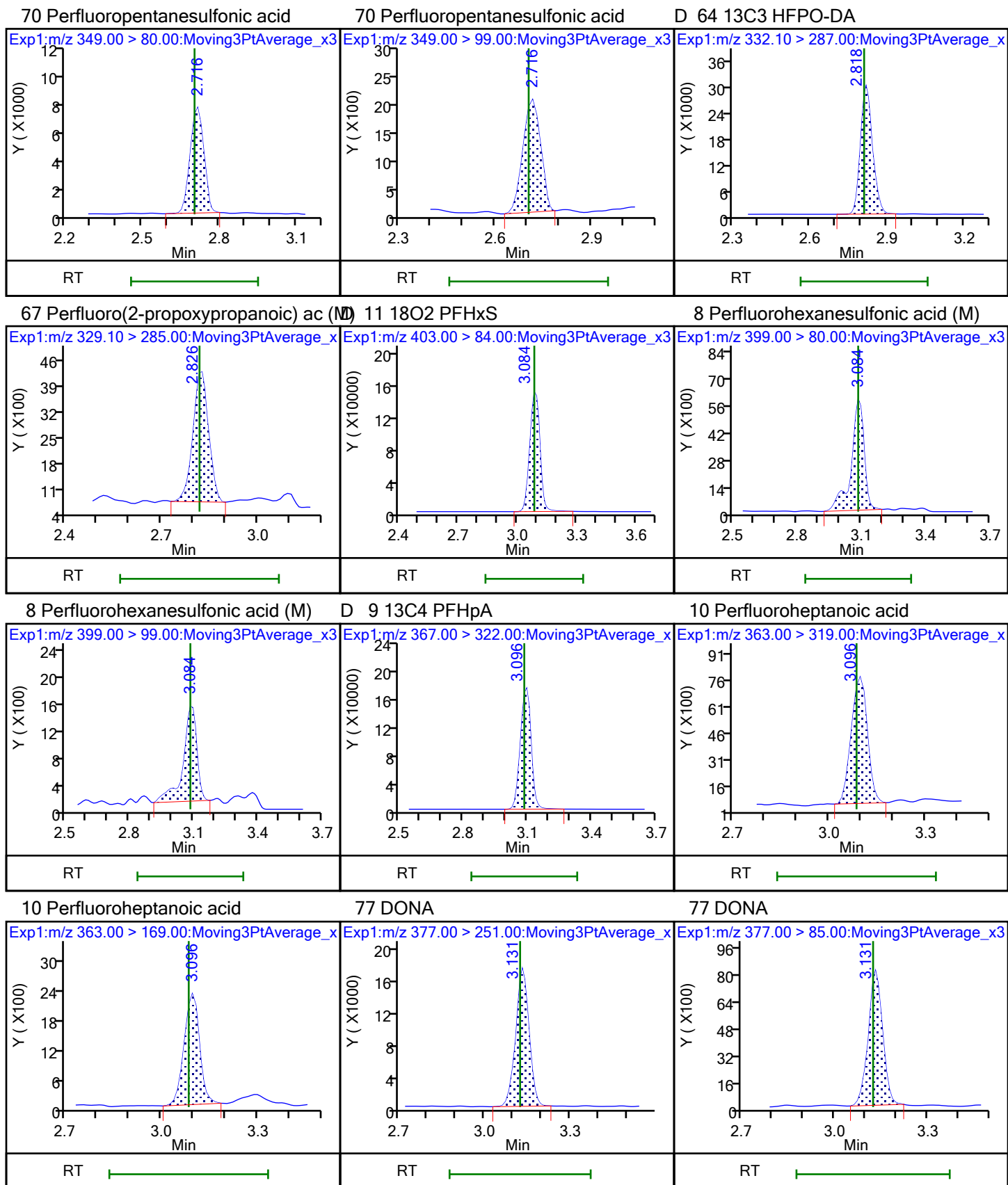


D 7 13C2 PFHxA

6 Perfluorohexanoic acid

6 Perfluorohexanoic acid



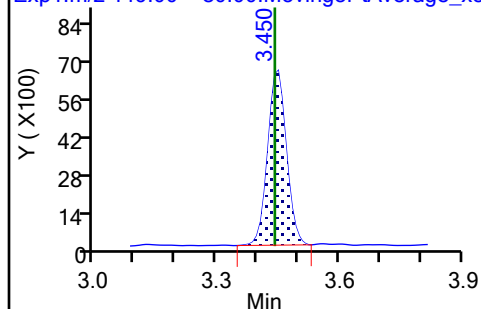


16 Perfluoroheptanesulfonic acid

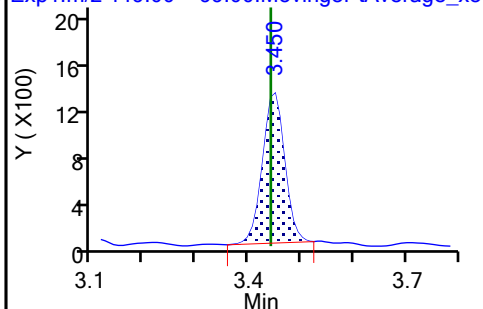
16 Perfluoroheptanesulfonic acid (M)

D 12 M2-6:2 FTS

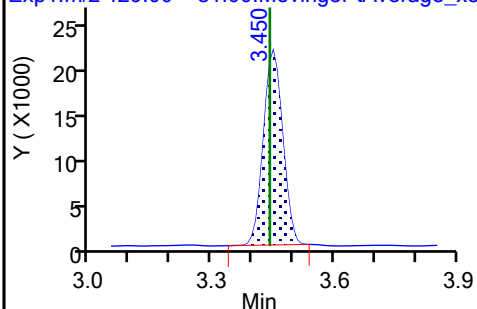
Exp1:m/z 449.00 > 80.00:Moving3PtAverage_x3



Exp1:m/z 449.00 > 99.00:Moving3PtAverage_x3



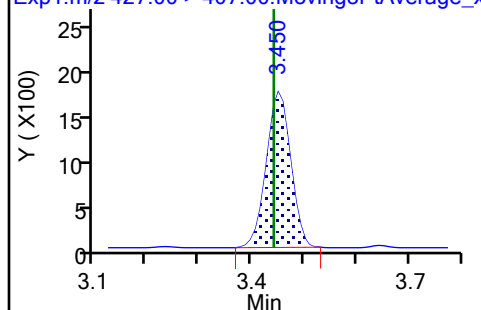
Exp1:m/z 429.00 > 81.00:Moving3PtAverage_x3



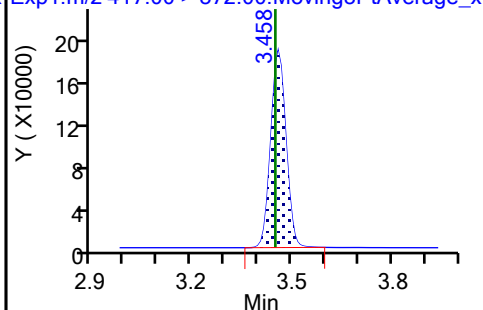
13 1H,1H,2H,2H-perfluorooctanesulfo

* 62 13C2 PFOA

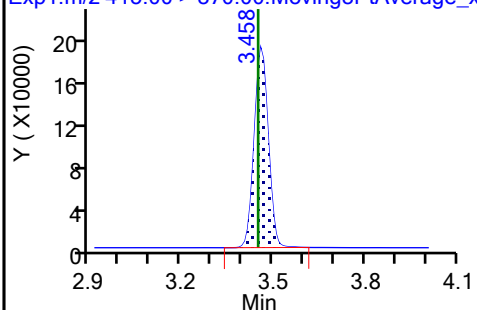
Exp1:m/z 427.00 > 407.00:Moving3PtAverage_x3



Exp1:m/z 417.00 > 372.00:Moving3PtAverage_x3



Exp1:m/z 415.00 > 370.00:Moving3PtAverage_x3

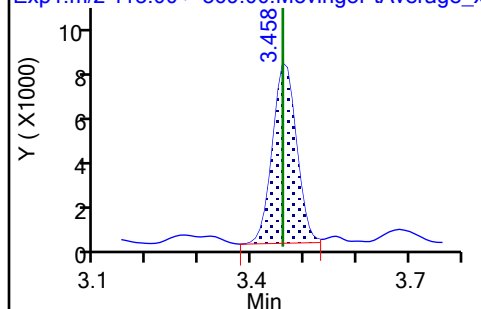


15 Perfluorooctanoic acid (M)

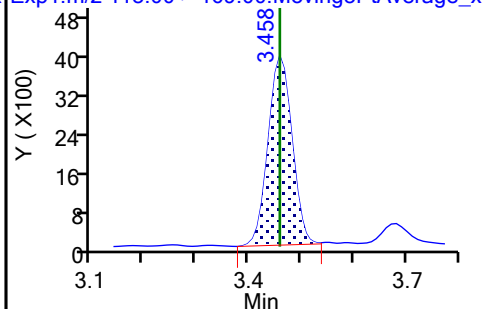
15 Perfluorooctanoic acid (M)

D 18 13C4 PFOS

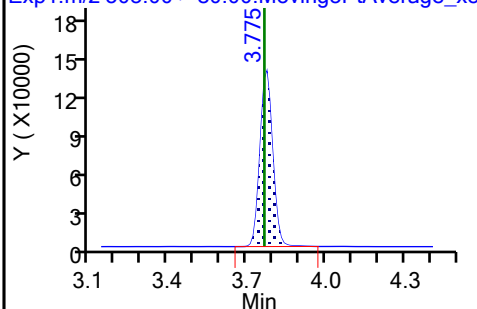
Exp1:m/z 413.00 > 369.00:Moving3PtAverage_x3



Exp1:m/z 413.00 > 169.00:Moving3PtAverage_x3



Exp1:m/z 503.00 > 80.00:Moving3PtAverage_x3

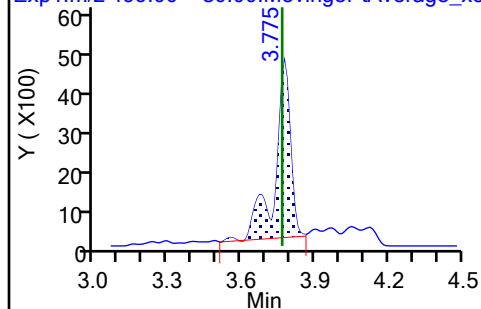


17 Perfluorooctanesulfonic acid (M)

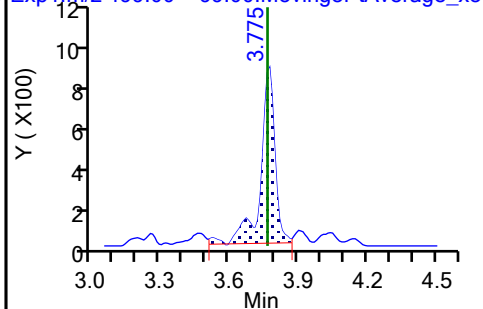
17 Perfluorooctanesulfonic acid (M)

D 19 13C5 PFNA

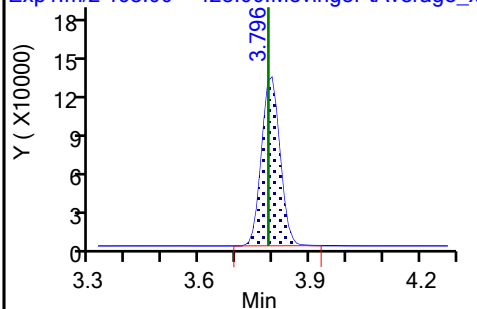
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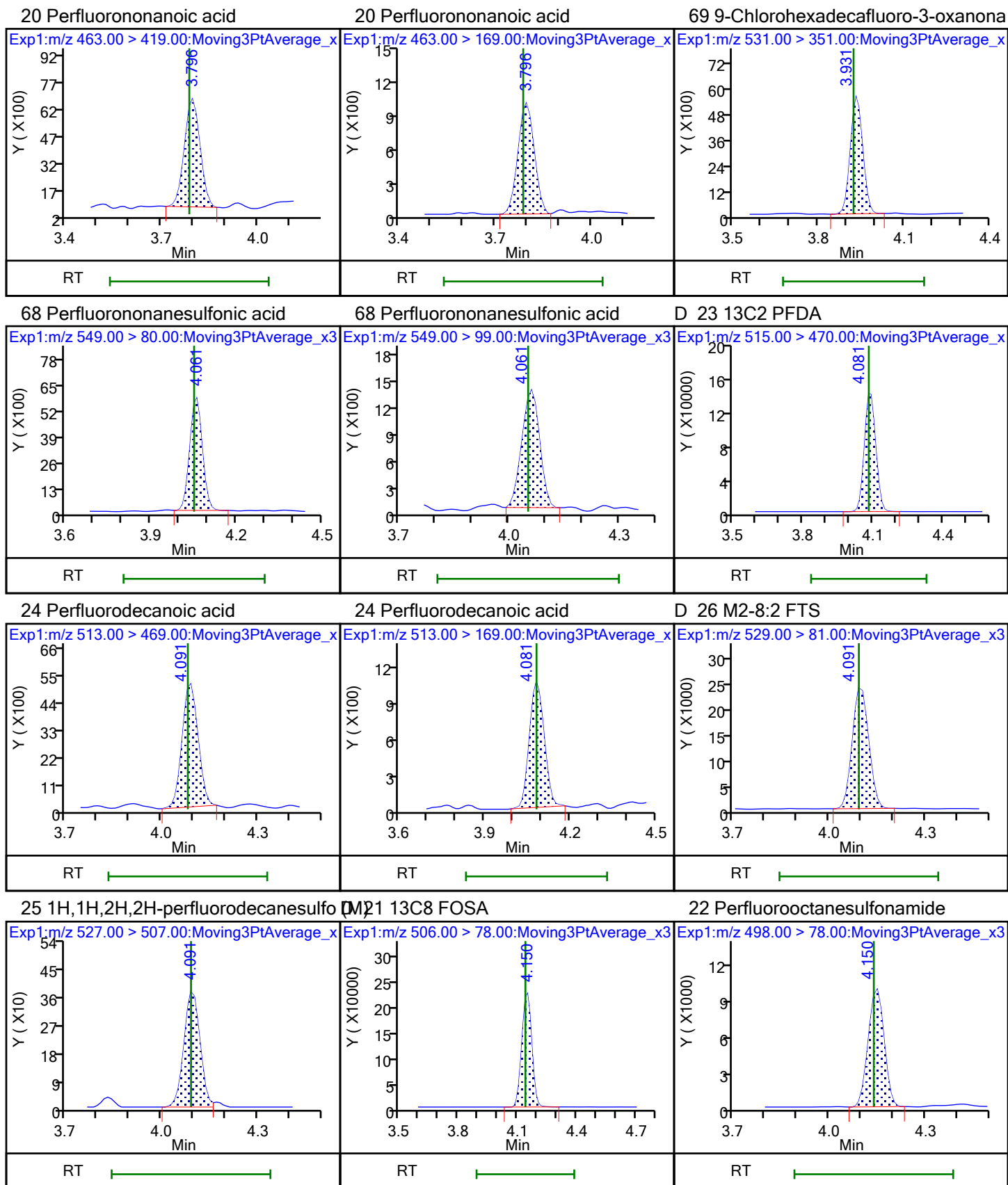


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Exp1:m/z 468.00 > 423.00:Moving3PtAverage_x3

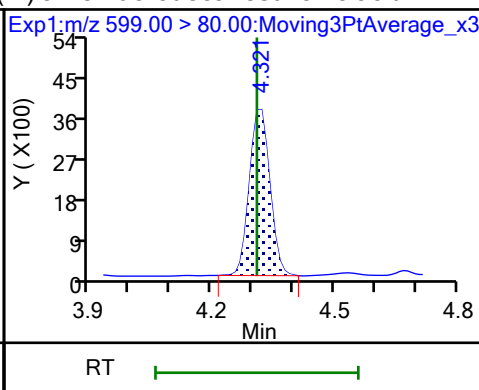
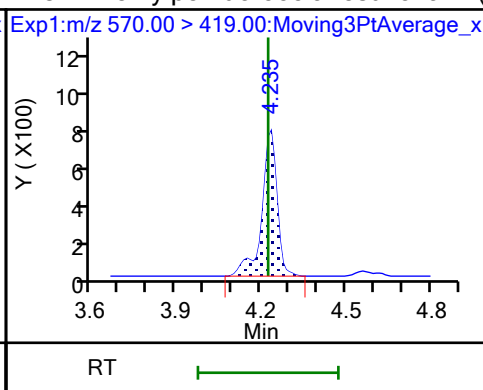
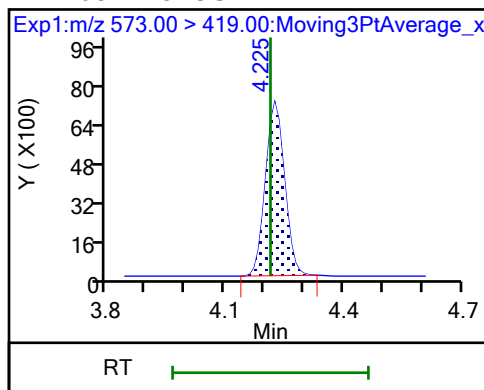




D 27 d3-NMeFOSAA

28 N-methylperfluorooctanesulfonami (M)

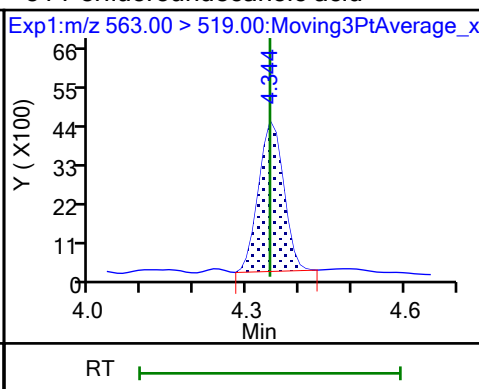
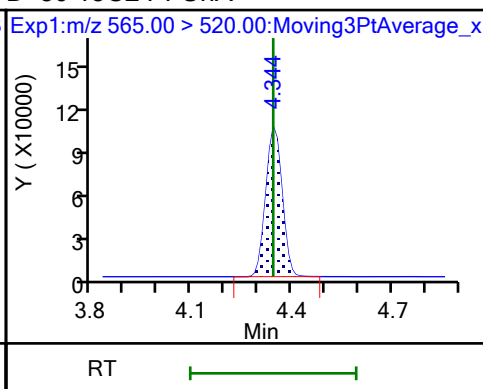
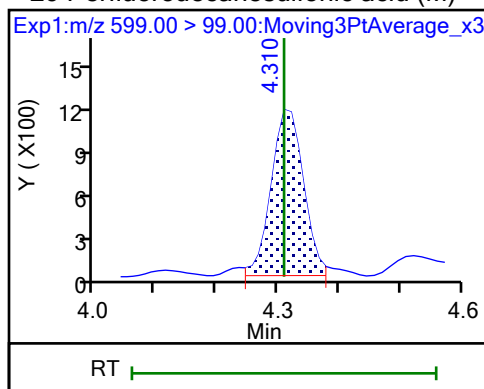
29 Perfluorodecanesulfonic acid (M)



29 Perfluorodecanesulfonic acid (M)

D 30 13C2 PFUnA

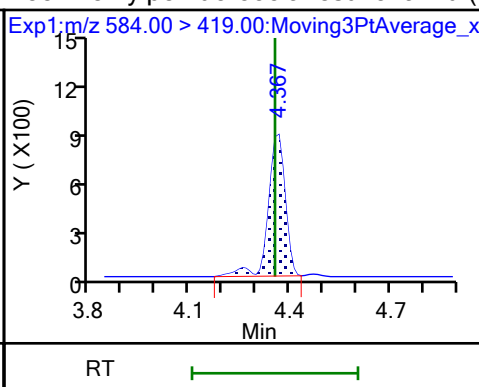
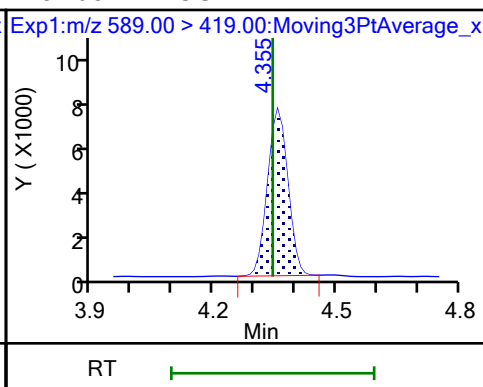
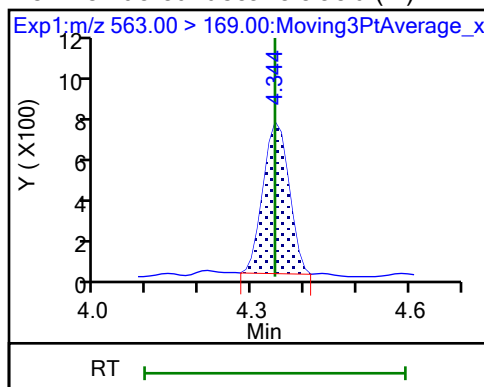
31 Perfluoroundecanoic acid



31 Perfluoroundecanoic acid (M)

D 32 d5-NEtFOSAA

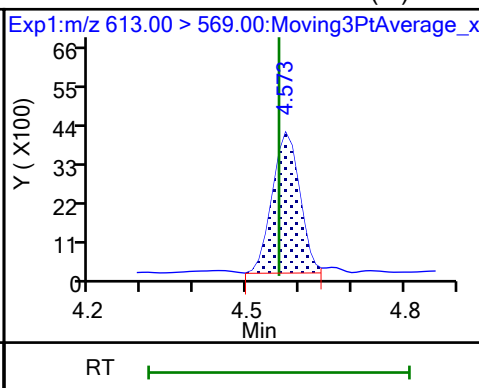
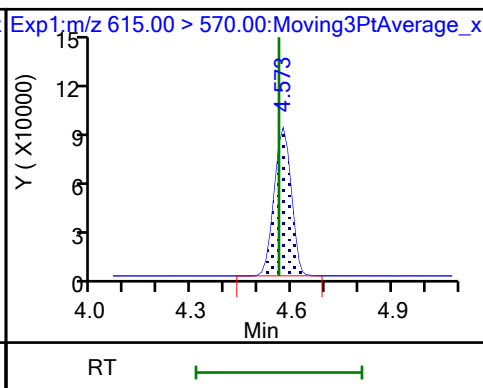
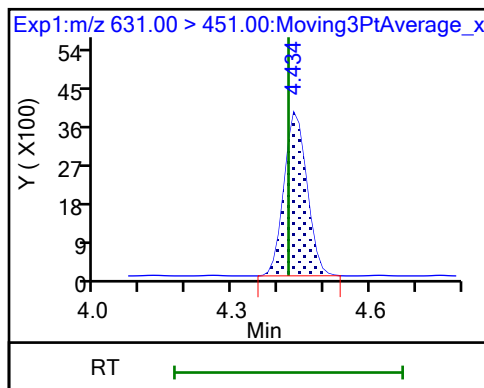
33 N-ethylperfluorooctanesulfonamid (M)

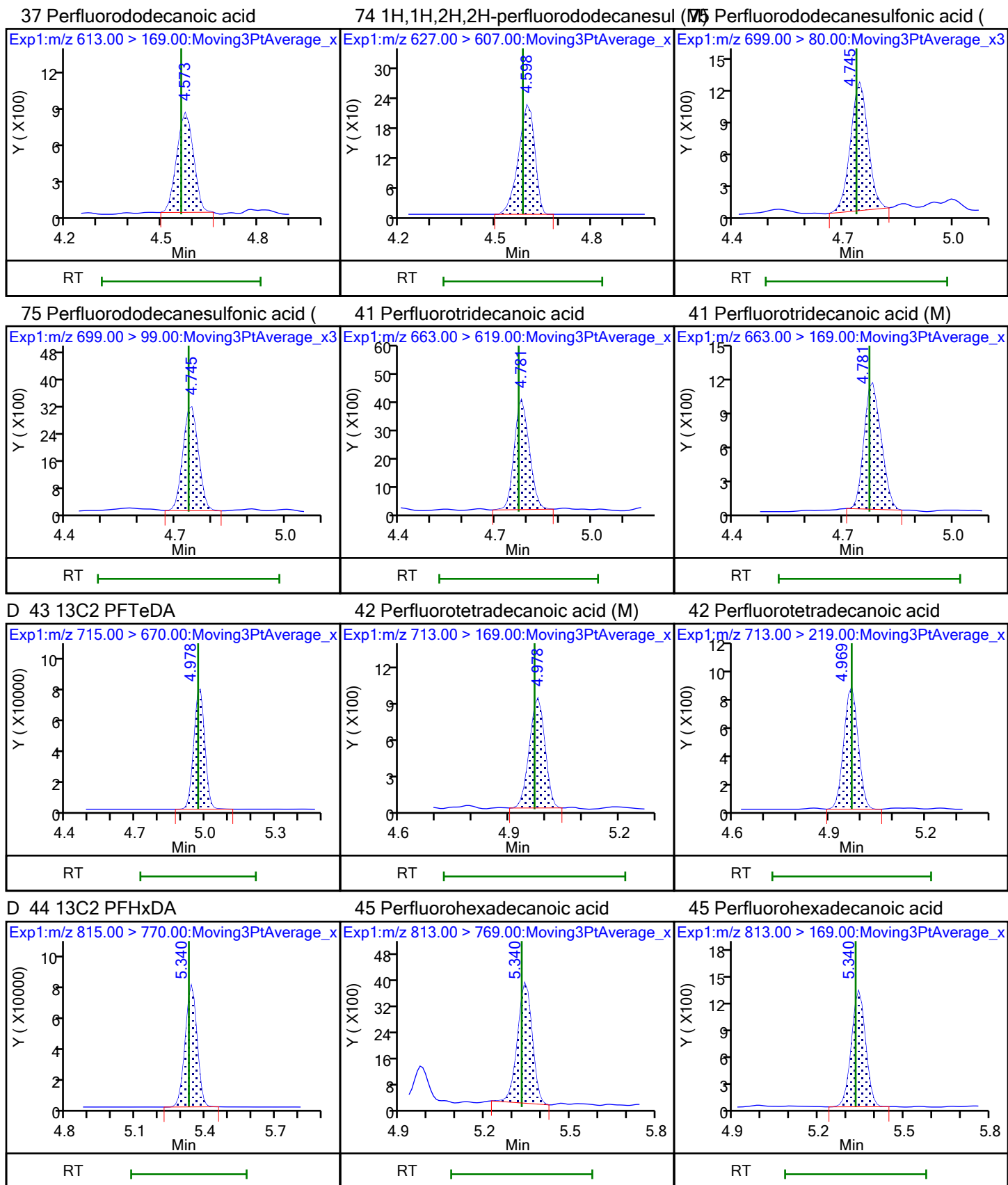


66 11-Chloroeicosafluoro-3-oxaundec

D 36 13C2 PFDaA

37 Perfluorododecanoic acid (M)



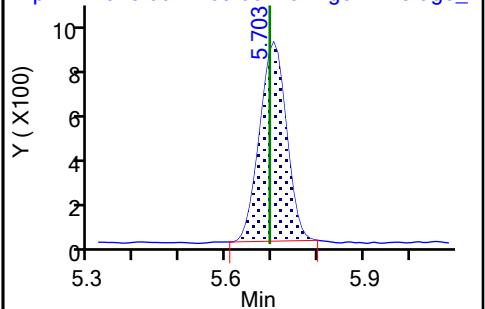
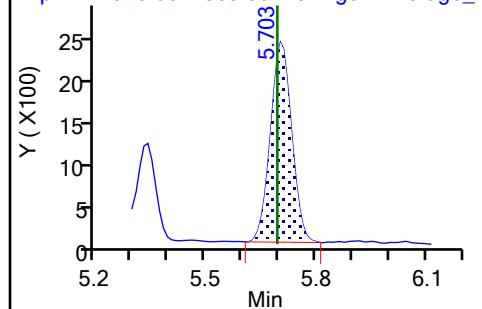


46 Perfluorooctadecanoic acid

46 Perfluorooctadecanoic acid

Exp1:m/z 913.00 > 869.00:Moving3PtAverage_x

Exp1:m/z 913.00 > 169.00:Moving3PtAverage_x



Eurofins TestAmerica, Burlington

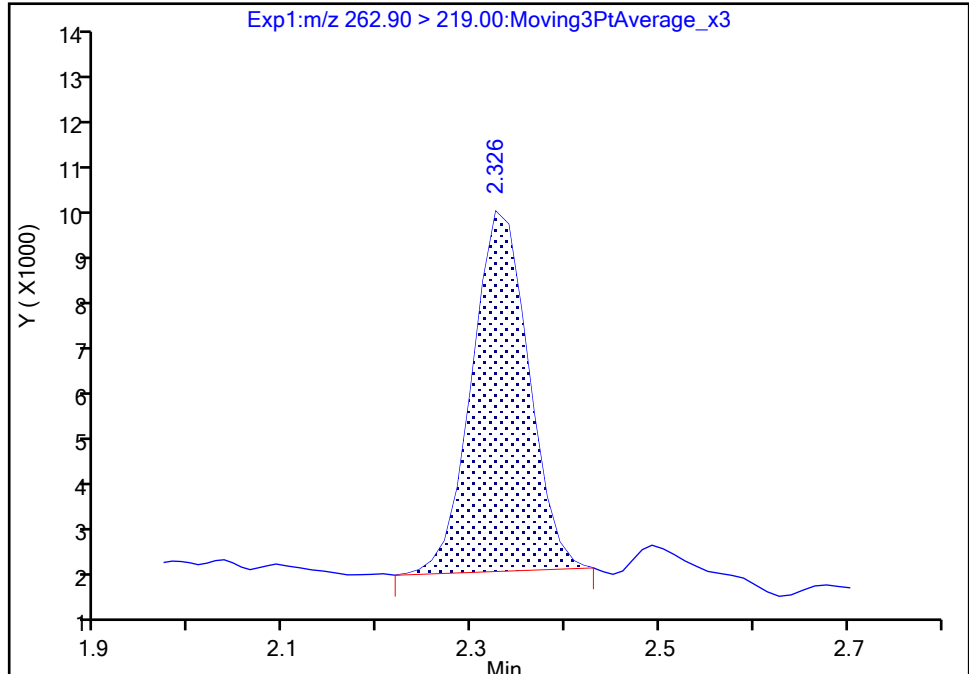
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Injection Date: 27-Oct-2020 17:22:13 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

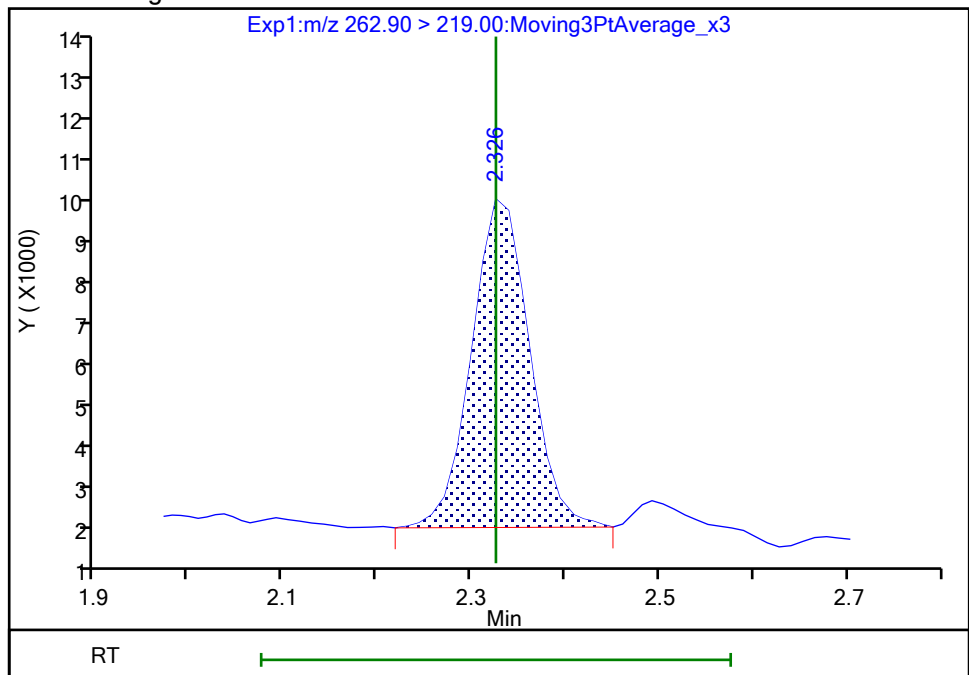
RT: 2.33
Area: 31264
Amount: 0.058369
Amount Units: ng/ml

Processing Integration Results



RT: 2.33
Area: 32194
Amount: 0.060106
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:43:18
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 648 of 906

Eurofins TestAmerica, Burlington

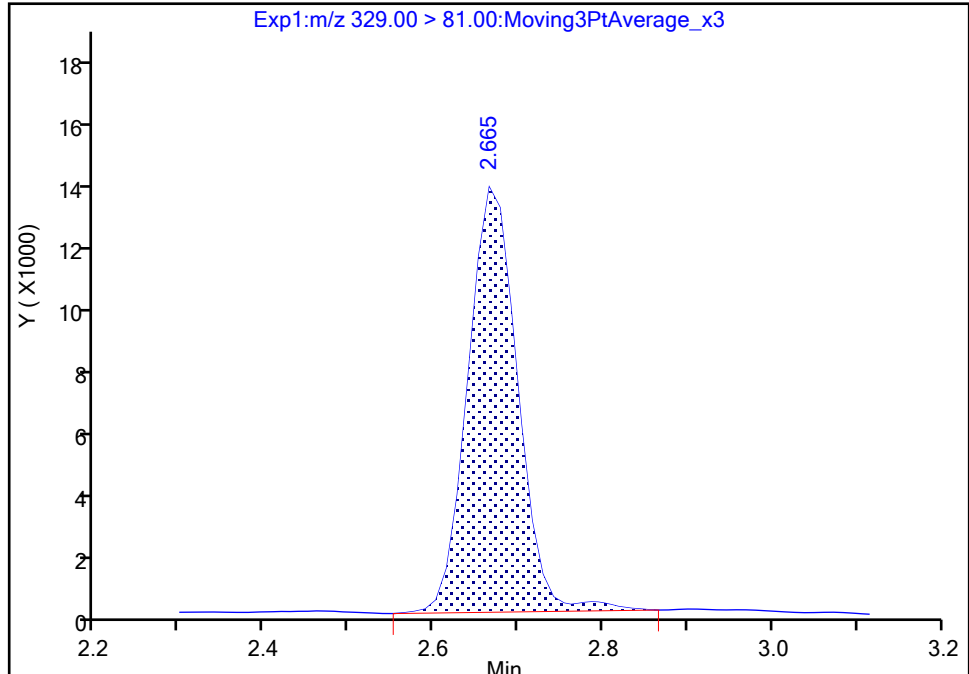
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Injection Date: 27-Oct-2020 17:22:13 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

D 60 M2-4:2 FTS, CAS: STL02395

Signal: 1

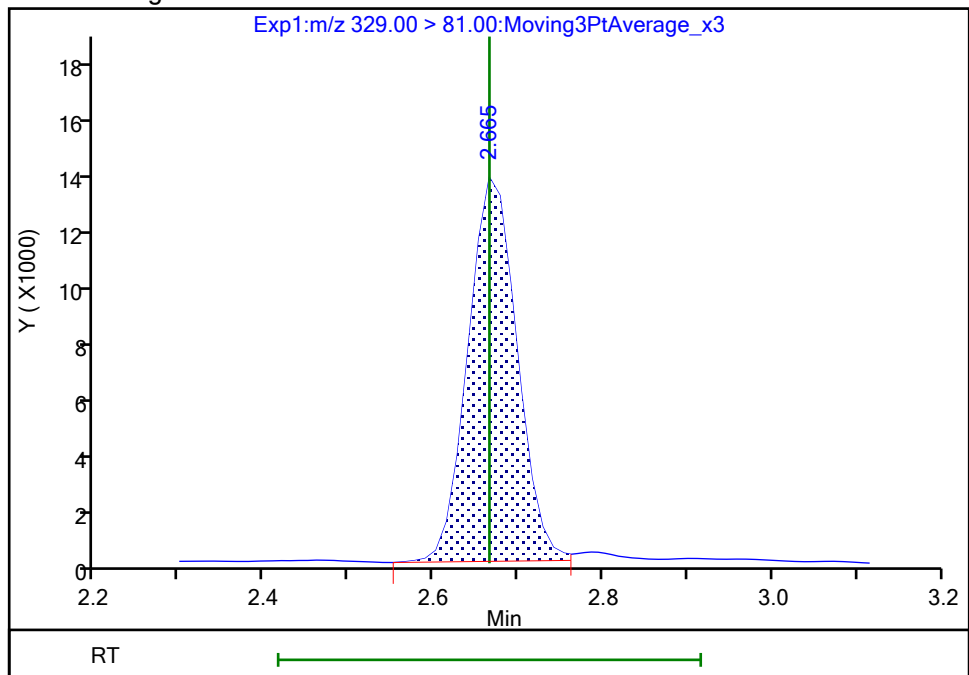
RT: 2.67
Area: 55909
Amount: 1.253890
Amount Units: ng/ml

Processing Integration Results



RT: 2.67
Area: 54956
Amount: 1.232517
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:43:27

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A05.d

Injection Date: 27-Oct-2020 17:22:13

Instrument ID: LC812

Lims ID: CCVL

Client ID:

Operator ID: lc812tech

ALS Bottle#:

2

Worklist Smp#: 5

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

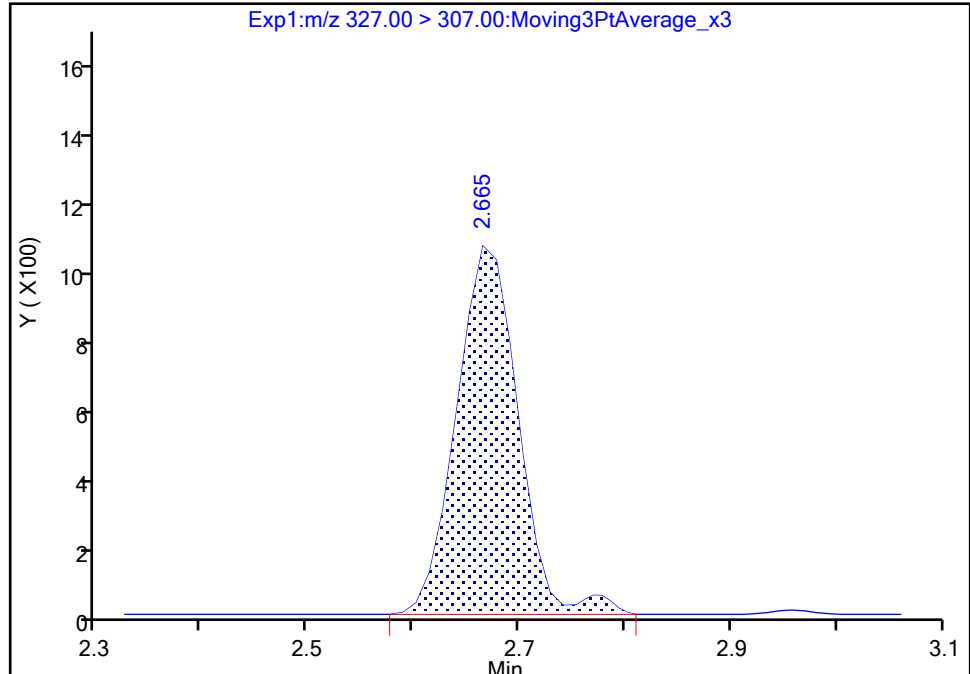
Detector: EXP1

61 1H,1H,2H,2H-perfluorohexanesulfo, CAS: 757124-72-4

Signal: 1

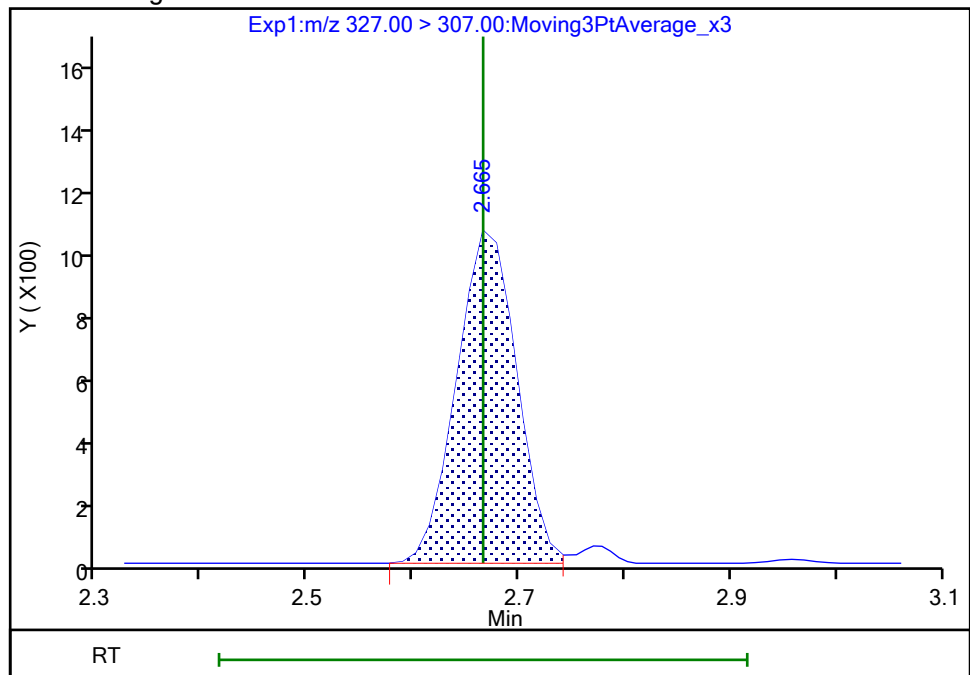
RT: 2.67
Area: 4145
Amount: 0.054487
Amount Units: ng/ml

Processing Integration Results



RT: 2.67
Area: 4020
Amount: 0.052844
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:43:33

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

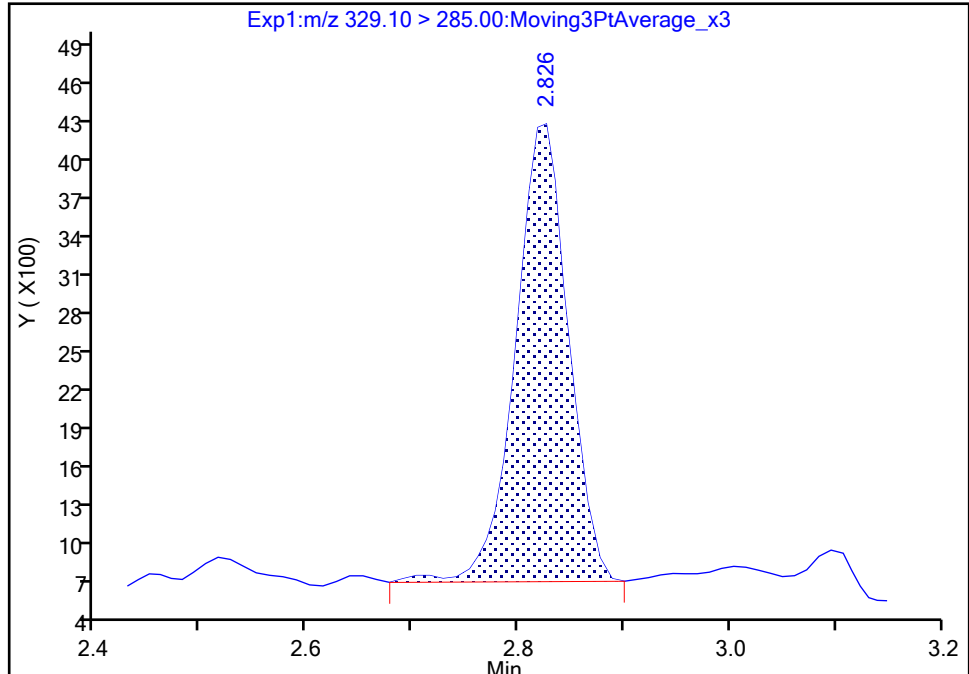
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A05.d
Injection Date: 27-Oct-2020 17:22:13 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

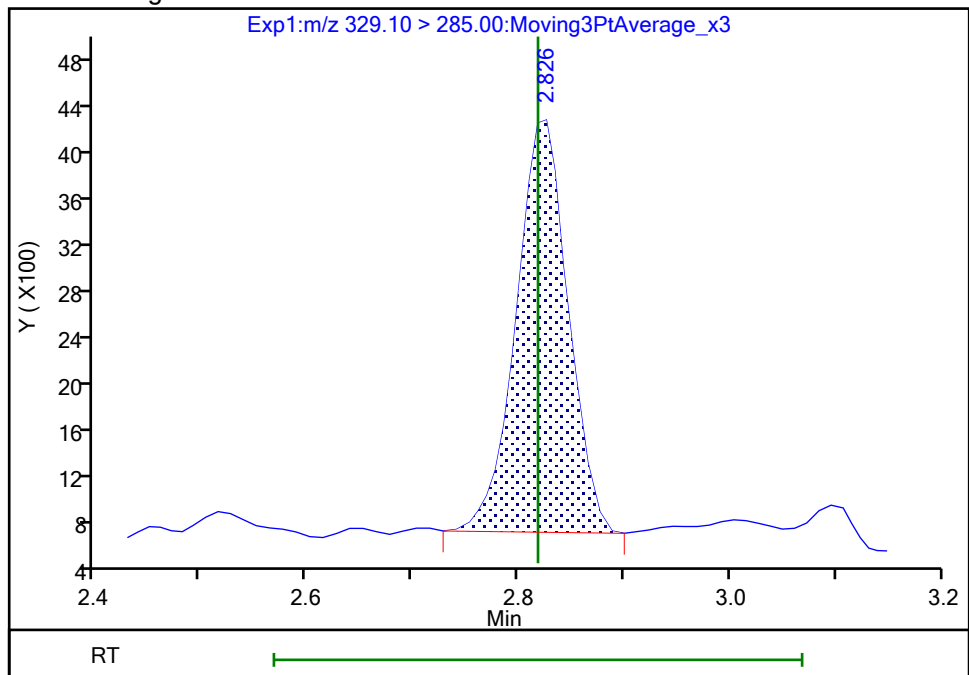
RT: 2.83
Area: 12195
Amount: 0.074554
Amount Units: ng/ml

Processing Integration Results



RT: 2.83
Area: 11947
Amount: 0.073038
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:43:47

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

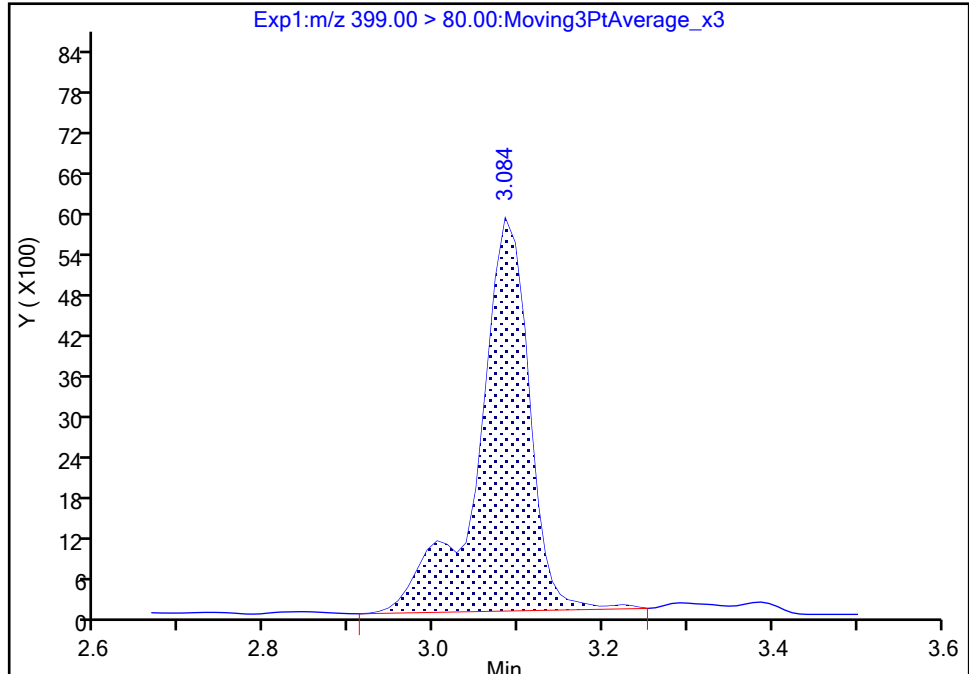
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A05.d
Injection Date: 27-Oct-2020 17:22:13 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

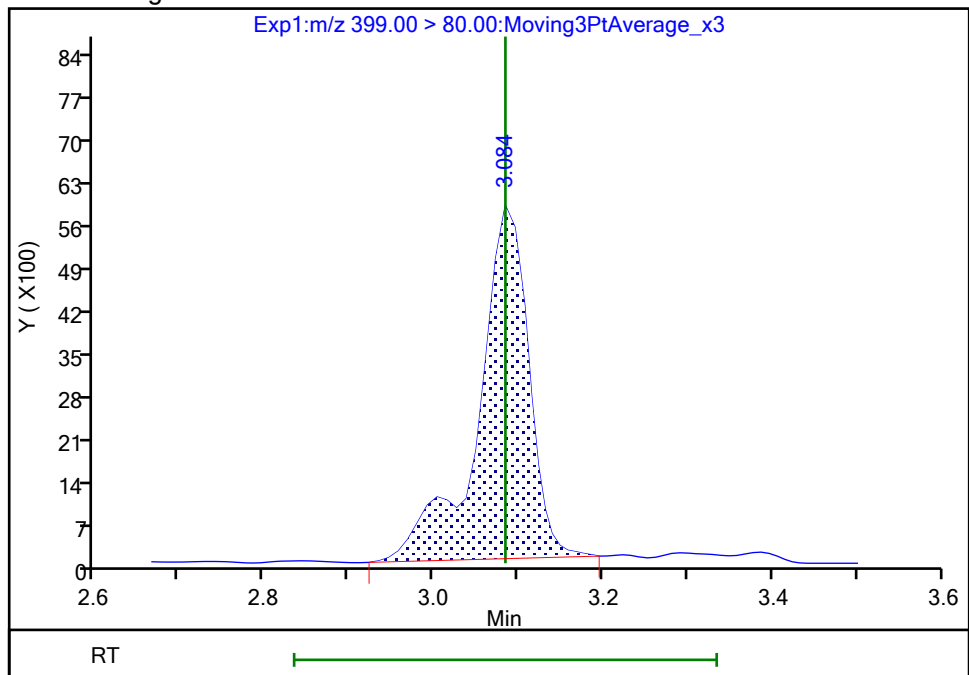
RT: 3.08
Area: 24625
Amount: 0.049799
Amount Units: ng/ml

Processing Integration Results



RT: 3.08
Area: 24128
Amount: 0.048794
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:43:56
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 652 of 906

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A05.d

Injection Date: 27-Oct-2020 17:22:13

Instrument ID: LC812

Lims ID: CCVL

Client ID:

Operator ID: lc812tech

ALS Bottle#:

2

Worklist Smp#:

5

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

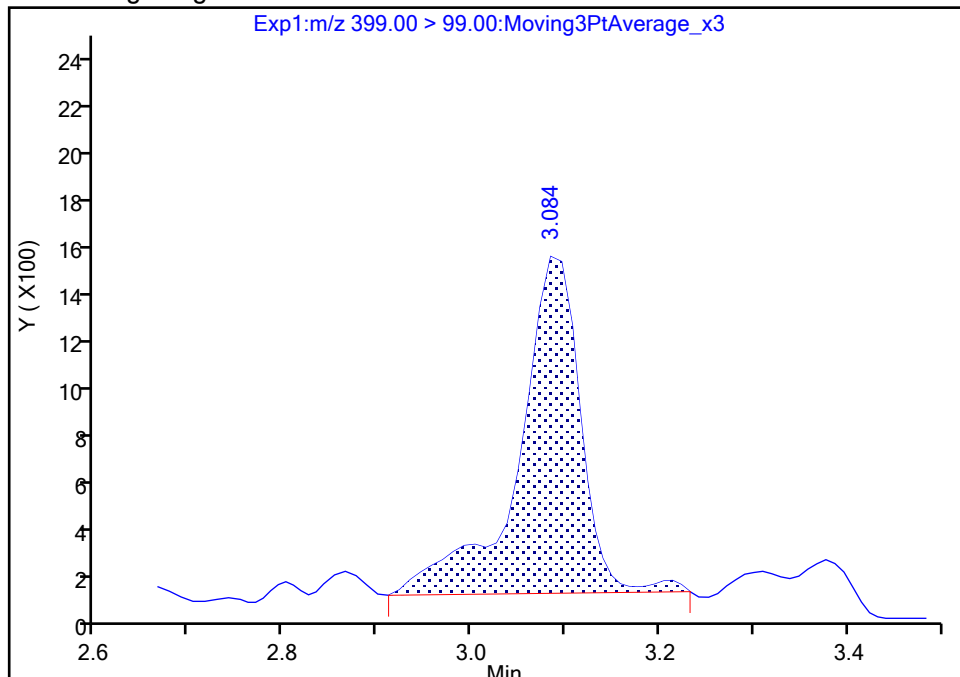
EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

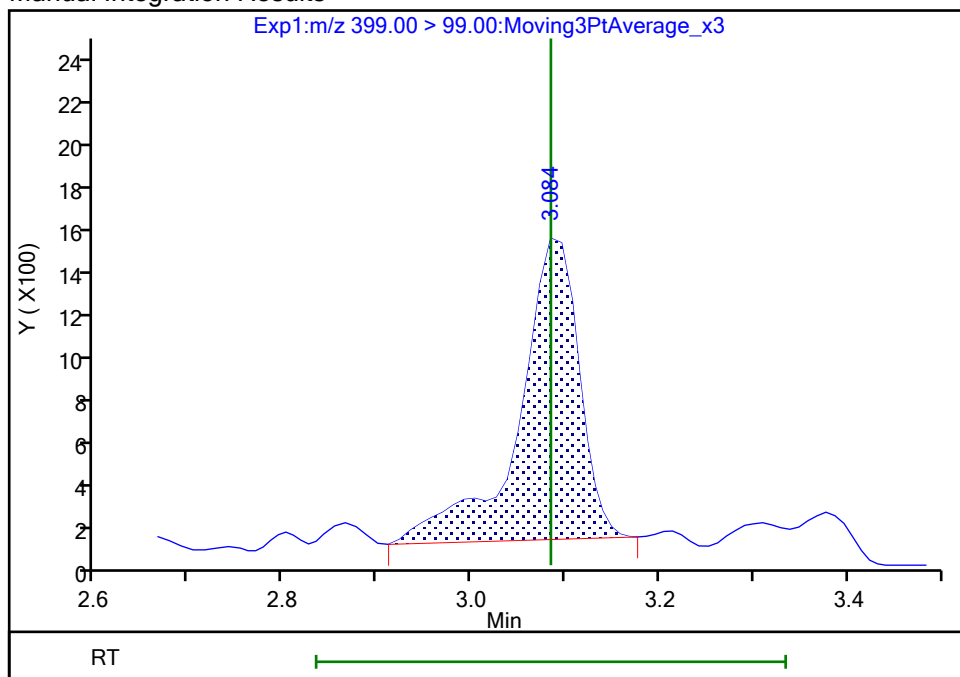
RT: 3.08
Area: 6446
Amount: 0.049799
Amount Units: ng/ml

Processing Integration Results



RT: 3.08
Area: 6168
Amount: 0.048794
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:44:00

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

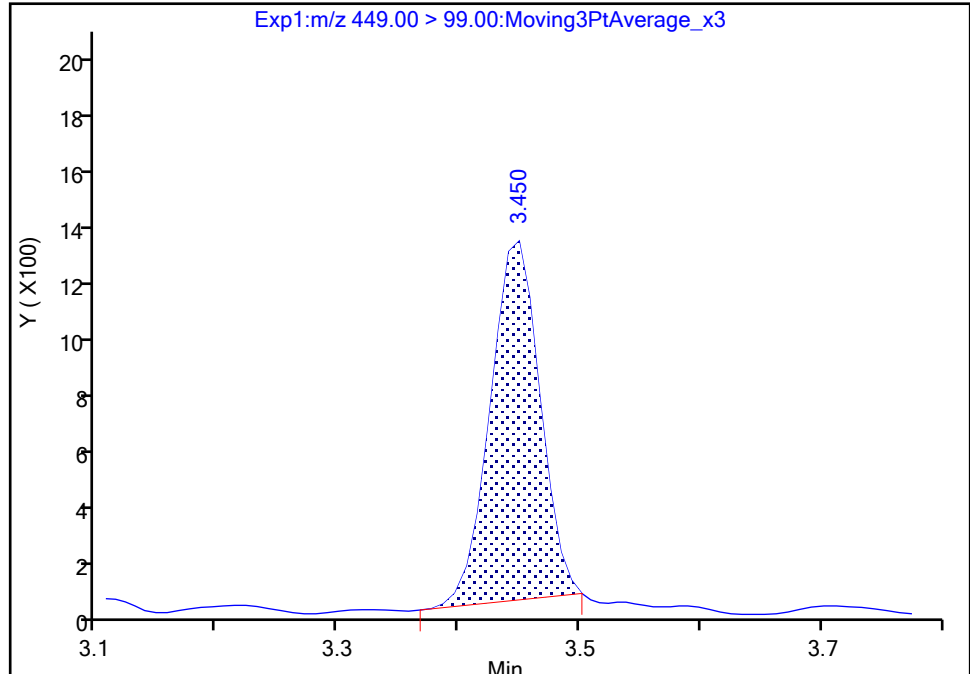
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A05.d
Injection Date: 27-Oct-2020 17:22:13 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

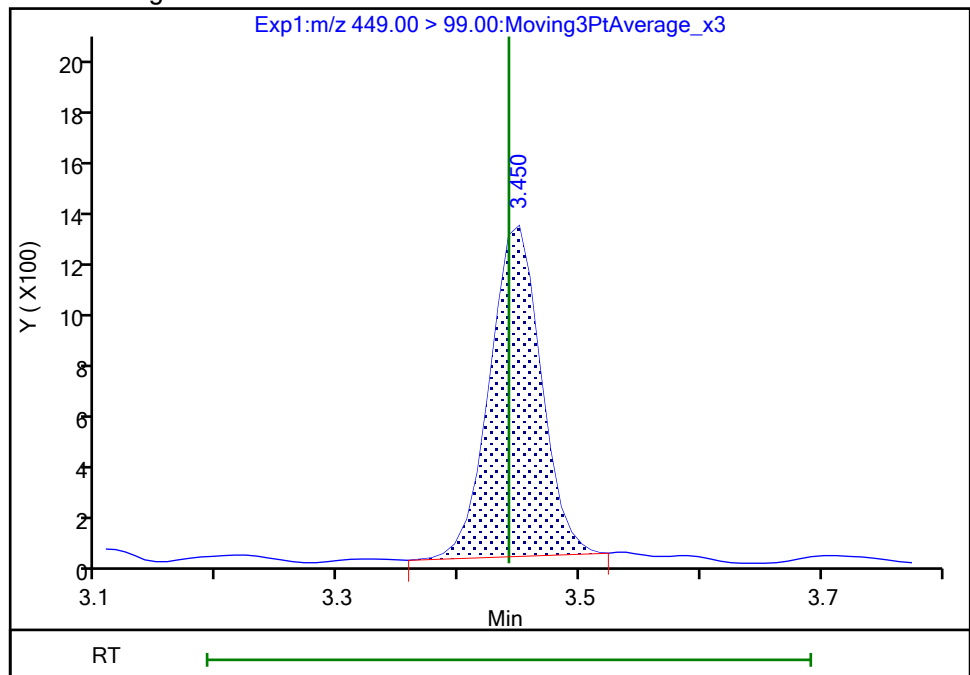
RT: 3.45
Area: 3522
Amount: 0.047489
Amount Units: ng/ml

Processing Integration Results



RT: 3.45
Area: 3699
Amount: 0.047489
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:44:09

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

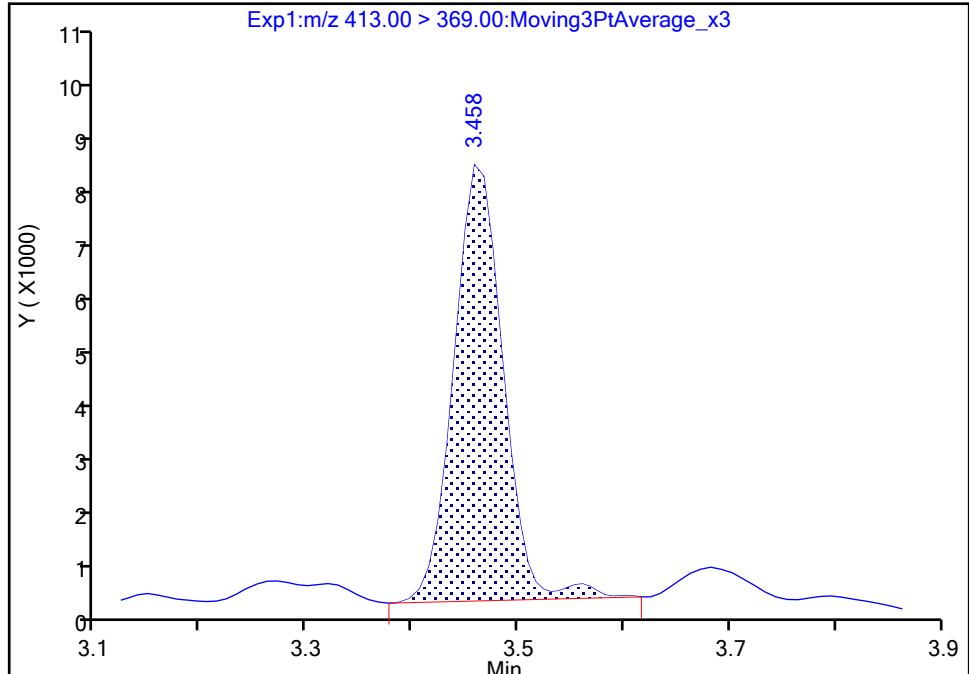
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A05.d
Injection Date: 27-Oct-2020 17:22:13 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

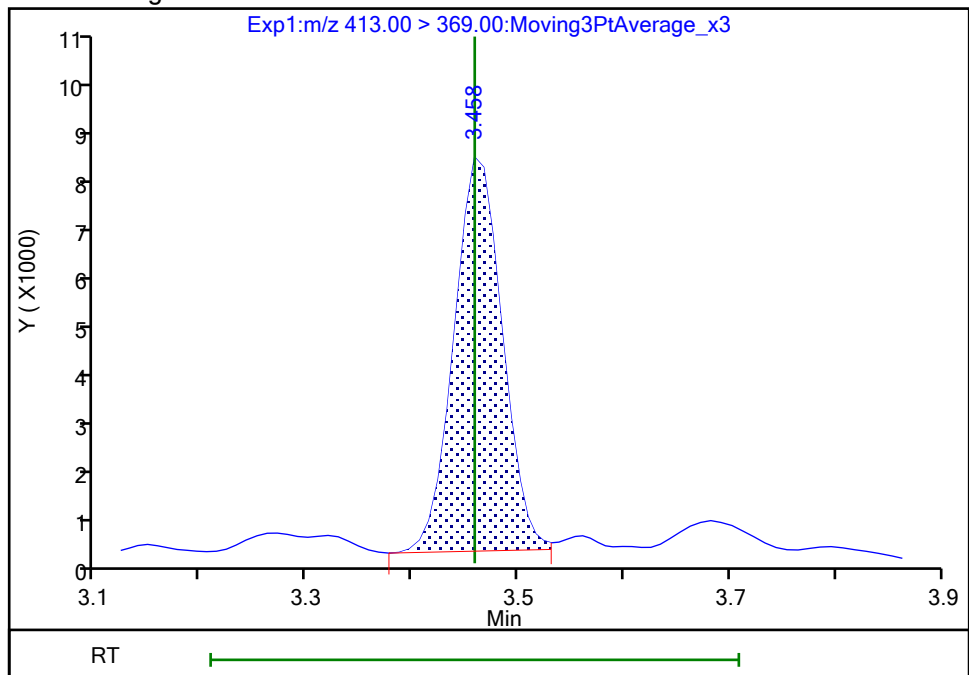
RT: 3.46
Area: 25396
Amount: 0.051626
Amount Units: ng/ml

Processing Integration Results



RT: 3.46
Area: 24791
Amount: 0.050396
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:44:20
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 655 of 906

Eurofins TestAmerica, Burlington

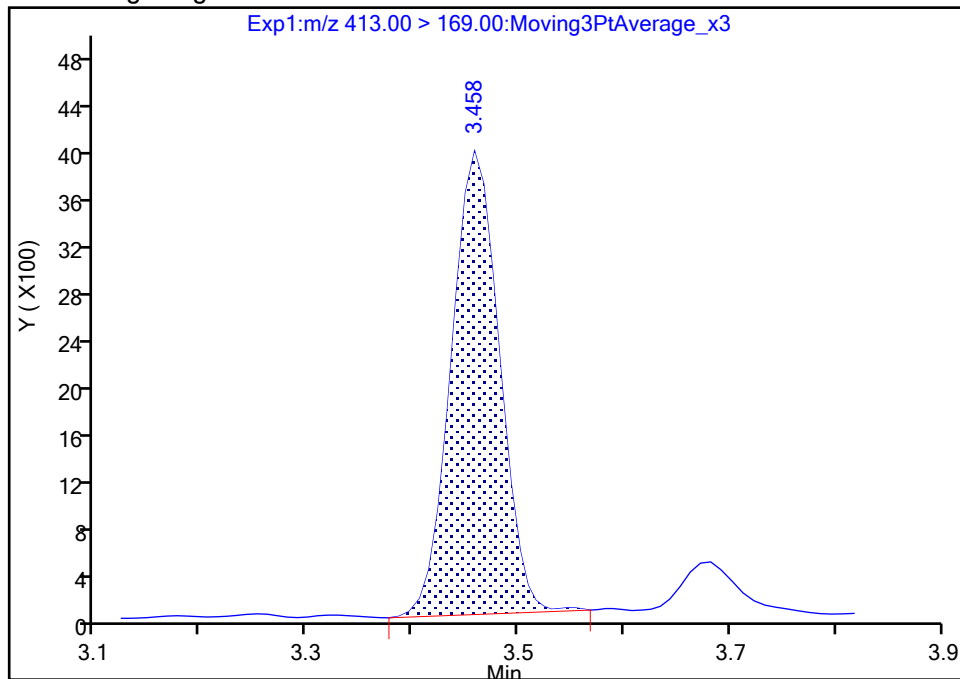
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A05.d
Injection Date: 27-Oct-2020 17:22:13 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

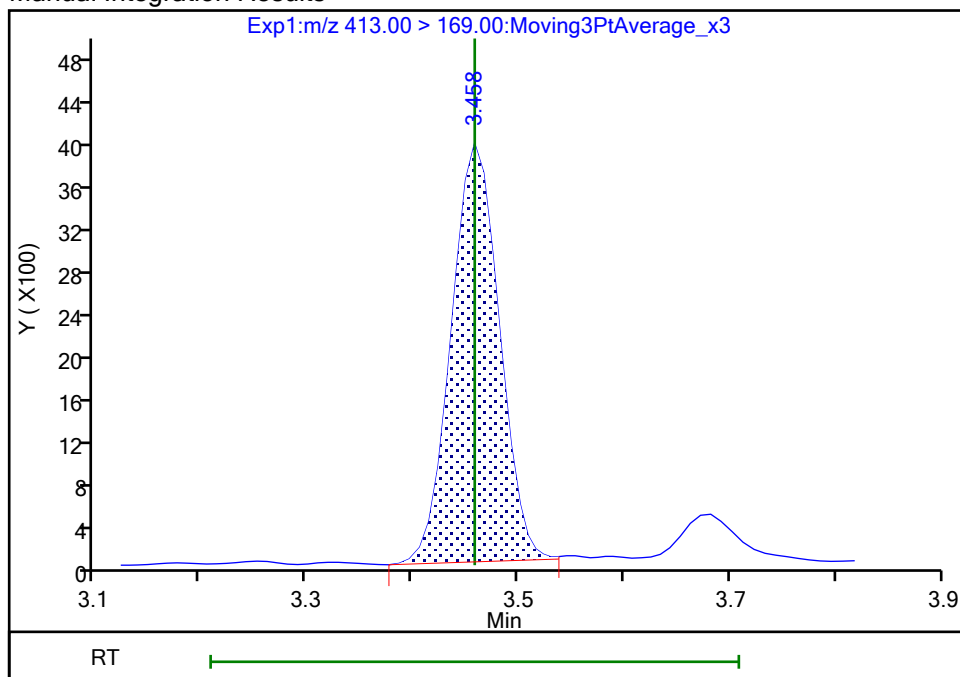
RT: 3.46
Area: 12490
Amount: 0.051626
Amount Units: ng/ml

Processing Integration Results



RT: 3.46
Area: 12466
Amount: 0.050396
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:44:23

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

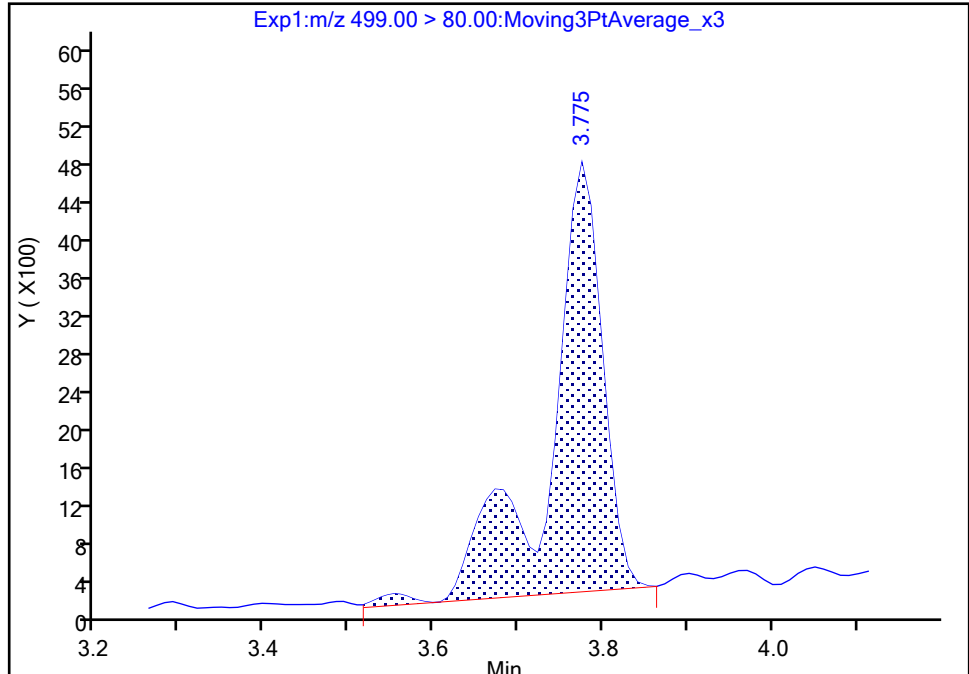
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A05.d
Injection Date: 27-Oct-2020 17:22:13 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

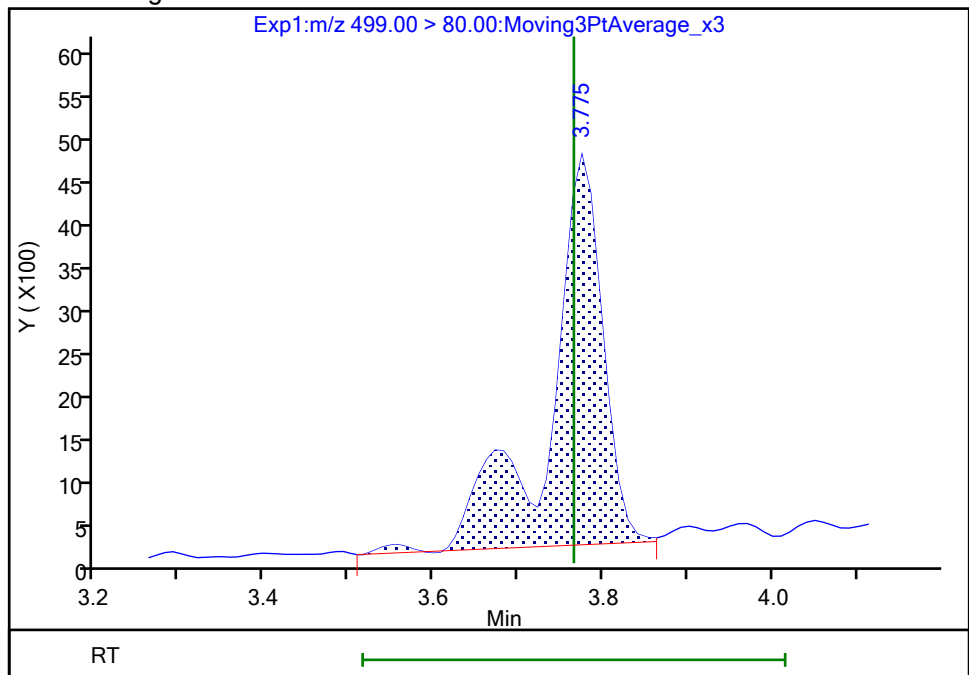
RT: 3.77
Area: 19883
Amount: 0.048270
Amount Units: ng/ml

Processing Integration Results



RT: 3.77
Area: 19975
Amount: 0.048494
Amount Units: ng/ml

Manual Integration Results



Reviewer: deannd, 28-Oct-2020 10:09:00

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

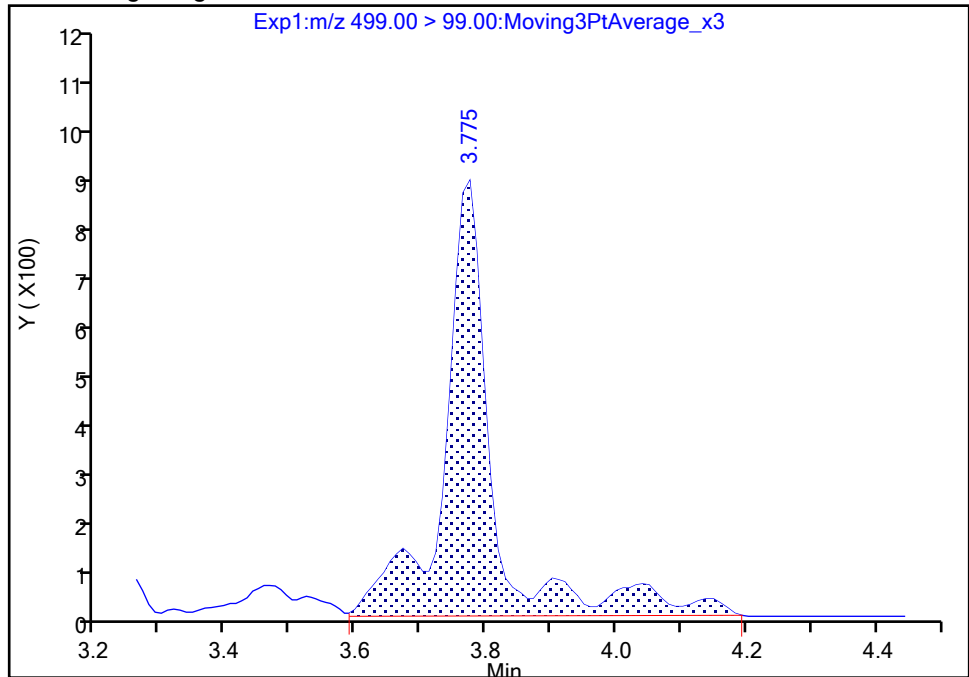
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A05.d
Injection Date: 27-Oct-2020 17:22:13 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

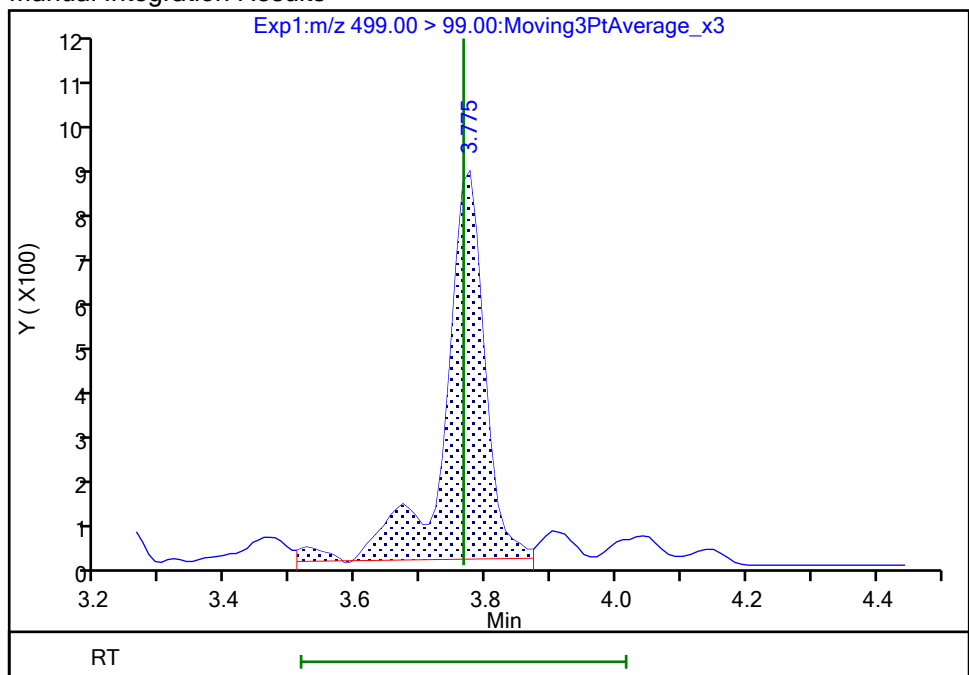
RT: 3.77
Area: 4436
Amount: 0.048270
Amount Units: ng/ml

Processing Integration Results



RT: 3.77
Area: 3609
Amount: 0.048494
Amount Units: ng/ml

Manual Integration Results



Reviewer: deannd, 28-Oct-2020 10:09:13

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

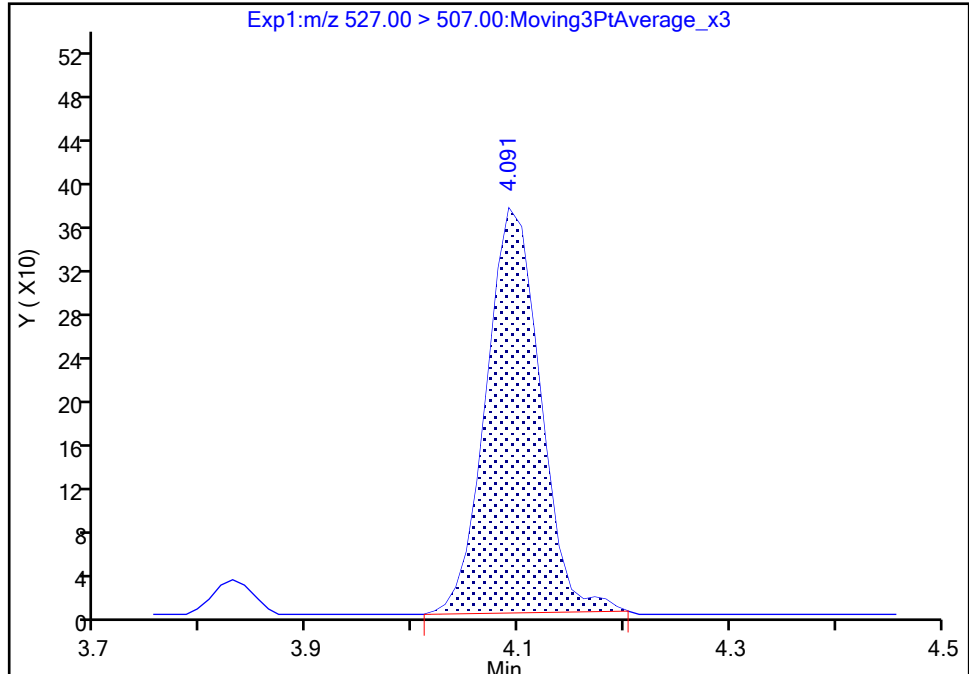
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A05.d
Injection Date: 27-Oct-2020 17:22:13 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

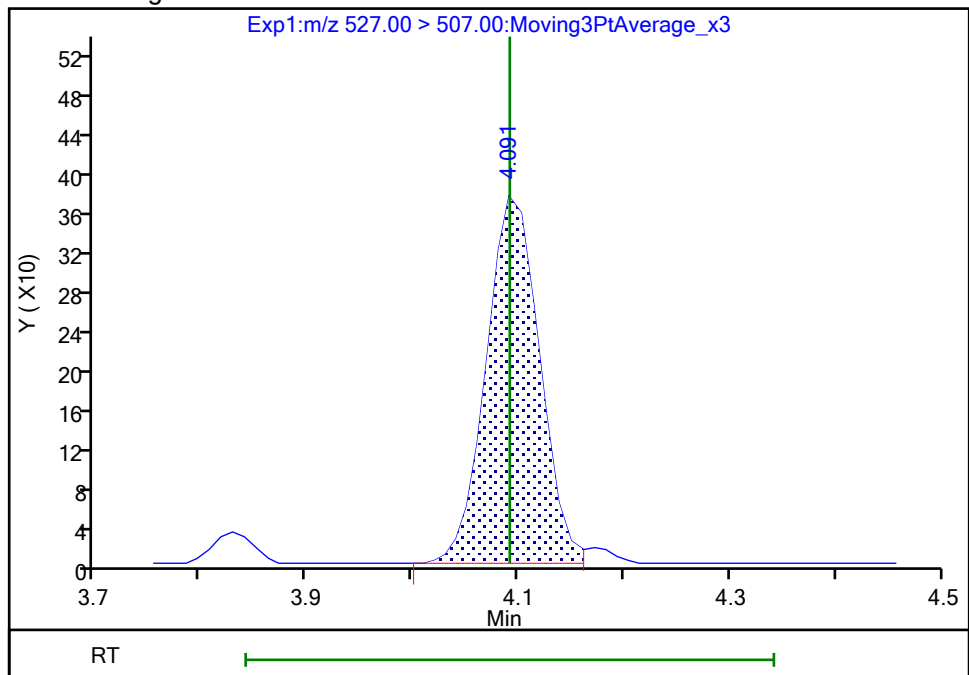
RT: 4.09
Area: 1326
Amount: 0.046819
Amount Units: ng/ml

Processing Integration Results



RT: 4.09
Area: 1314
Amount: 0.046396
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:45:48
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 659 of 906

Eurofins TestAmerica, Burlington

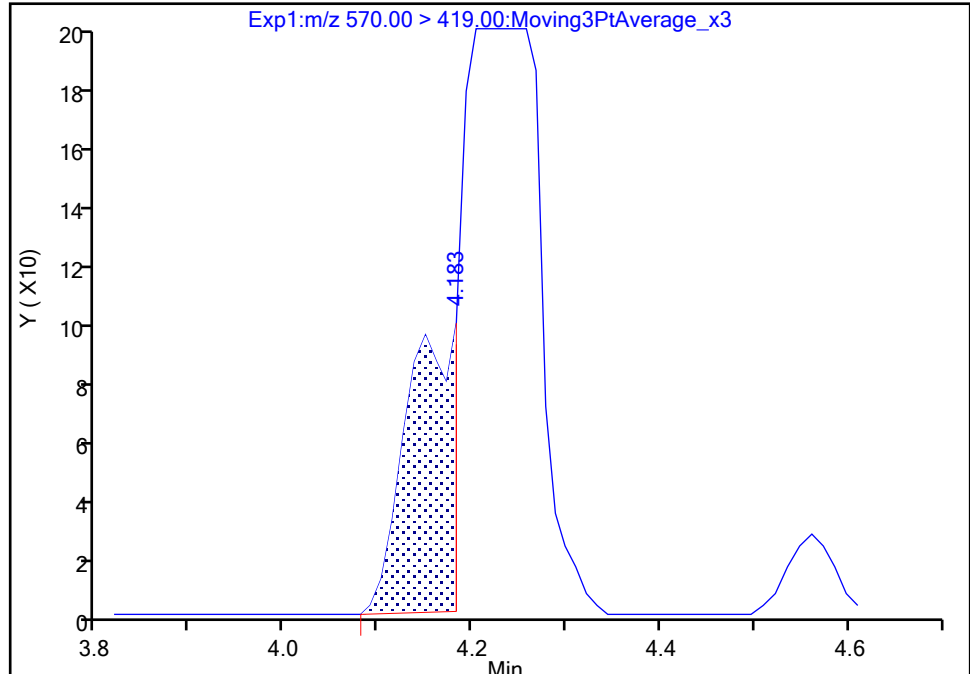
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A05.d
Injection Date: 27-Oct-2020 17:22:13 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

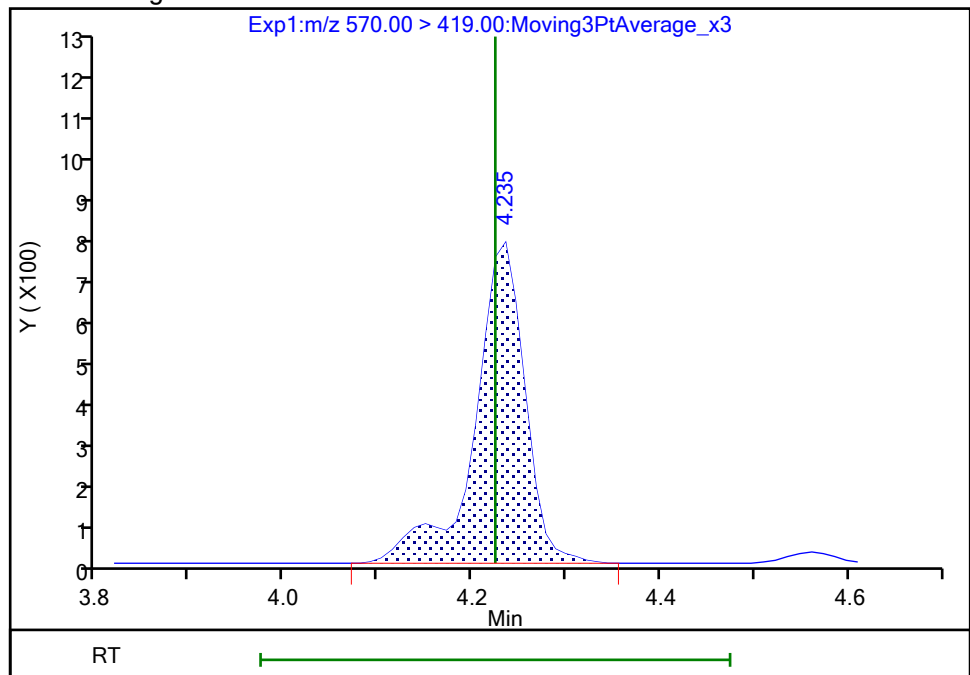
RT: 4.18
Area: 336
Amount: 0.018239
Amount Units: ng/ml

Processing Integration Results



RT: 4.24
Area: 2861
Amount: 0.155302
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:45:58
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 660 of 906

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A05.d

Injection Date: 27-Oct-2020 17:22:13

Instrument ID: LC812

Lims ID: CCVL

Client ID:

Operator ID: lc812tech

ALS Bottle#:

2

Worklist Smp#: 5

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

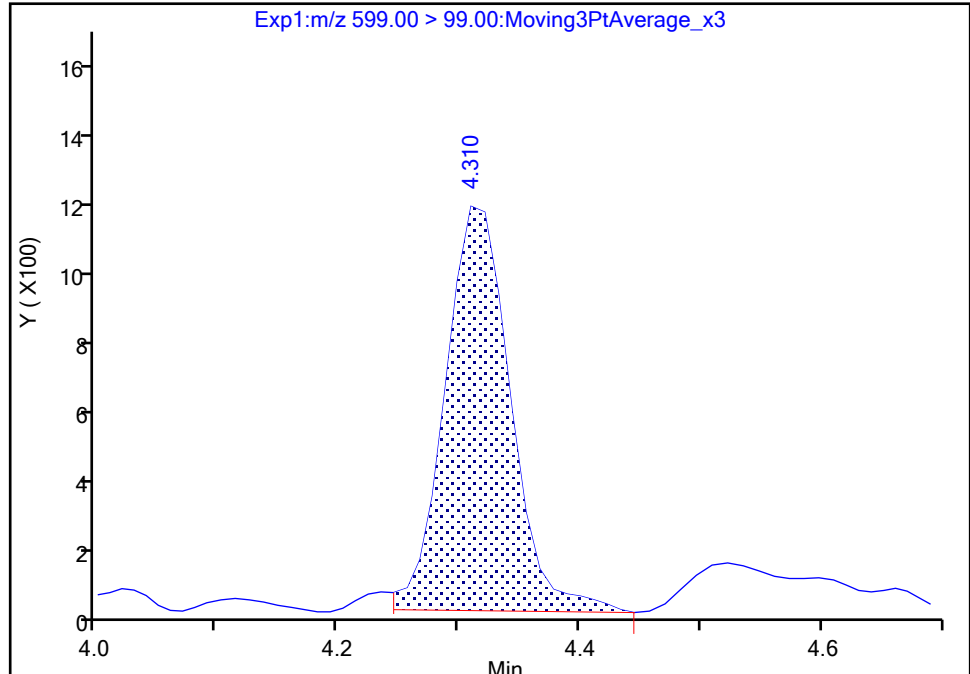
EXP1

29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

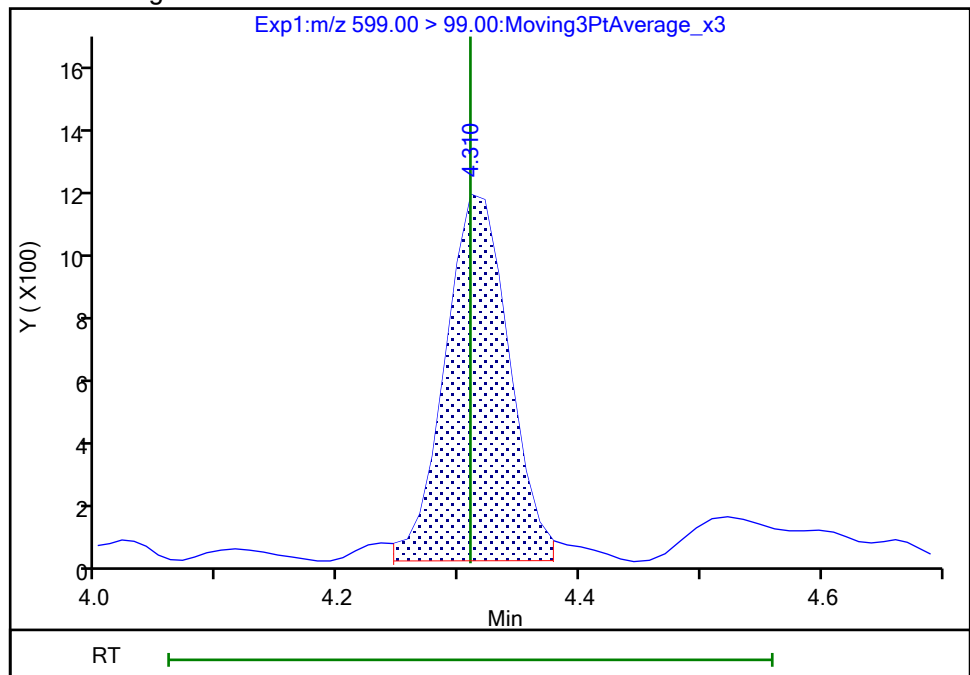
RT: 4.31
Area: 4197
Amount: 0.047737
Amount Units: ng/ml

Processing Integration Results



RT: 4.31
Area: 4095
Amount: 0.047737
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:46:11

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

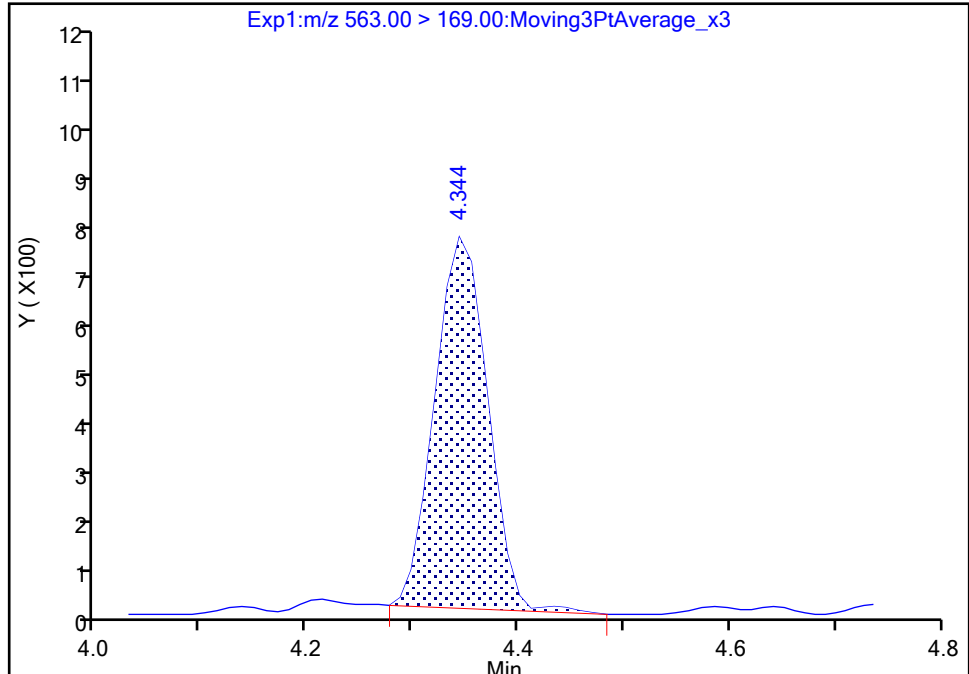
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A05.d
Injection Date: 27-Oct-2020 17:22:13 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

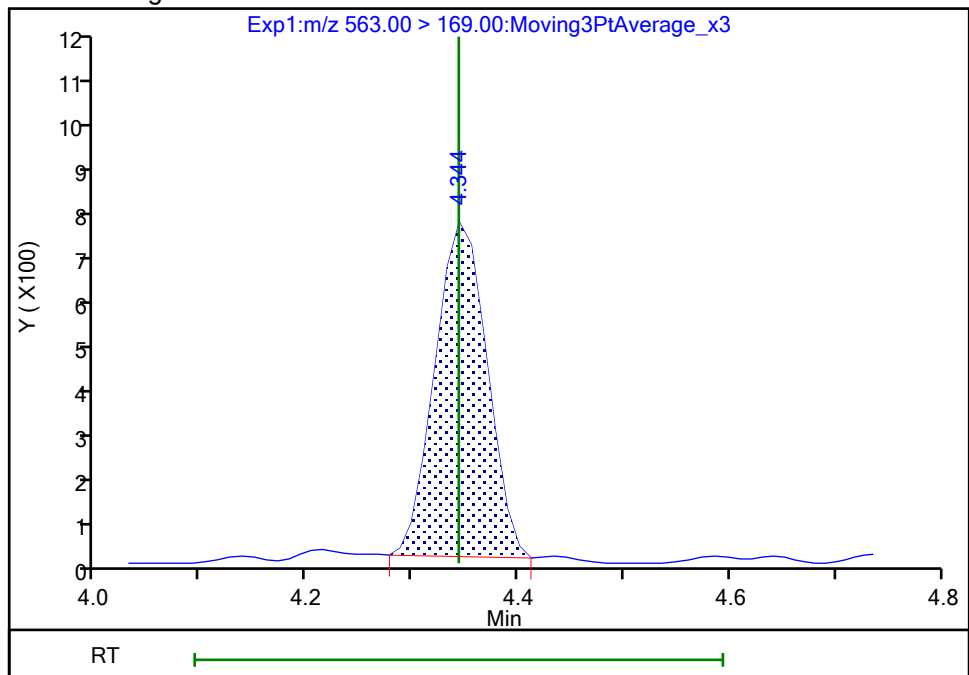
RT: 4.34
Area: 2455
Amount: 0.052731
Amount Units: ng/ml

Processing Integration Results



RT: 4.34
Area: 2408
Amount: 0.052731
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:46:20

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

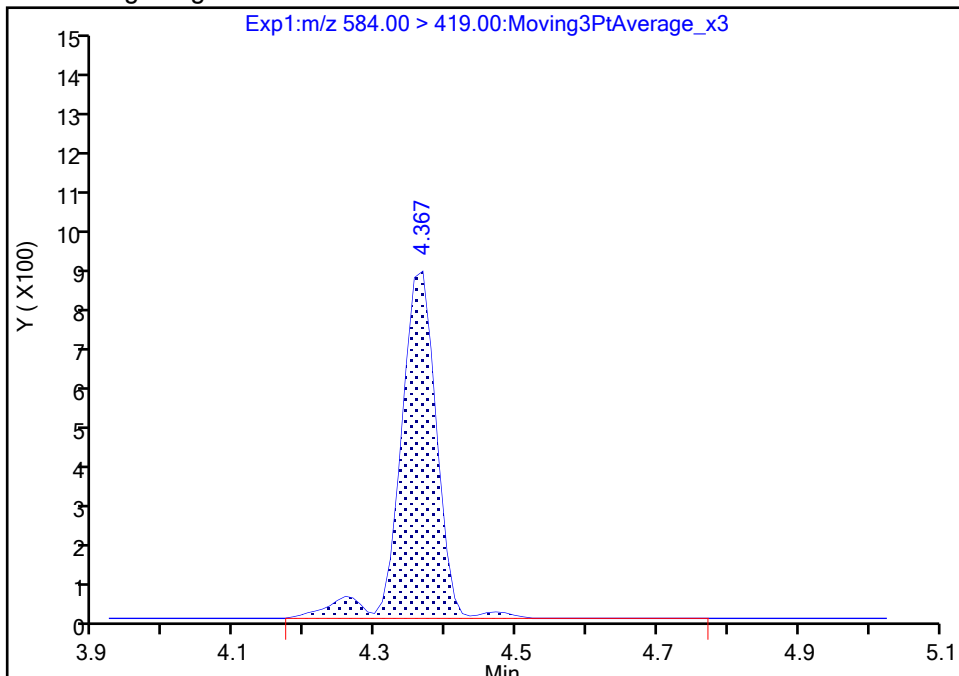
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A05.d
Injection Date: 27-Oct-2020 17:22:13 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

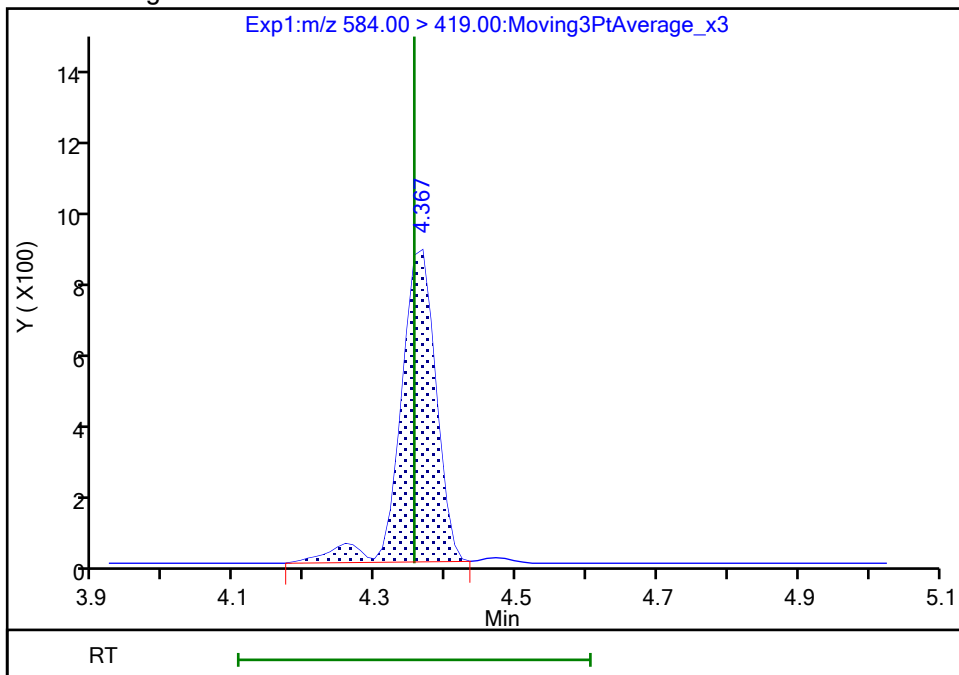
RT: 4.37
Area: 3024
Amount: 0.156912
Amount Units: ng/ml

Processing Integration Results



RT: 4.37
Area: 2938
Amount: 0.152449
Amount Units: ng/ml

Manual Integration Results



Reviewer: deannd, 28-Oct-2020 10:09:47

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

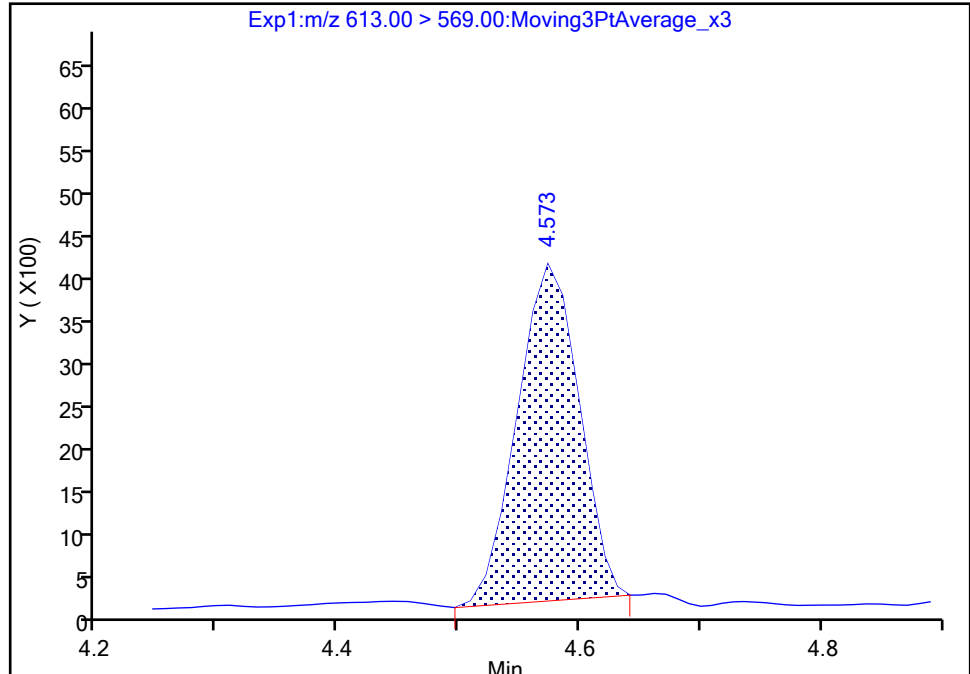
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A05.d
Injection Date: 27-Oct-2020 17:22:13 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

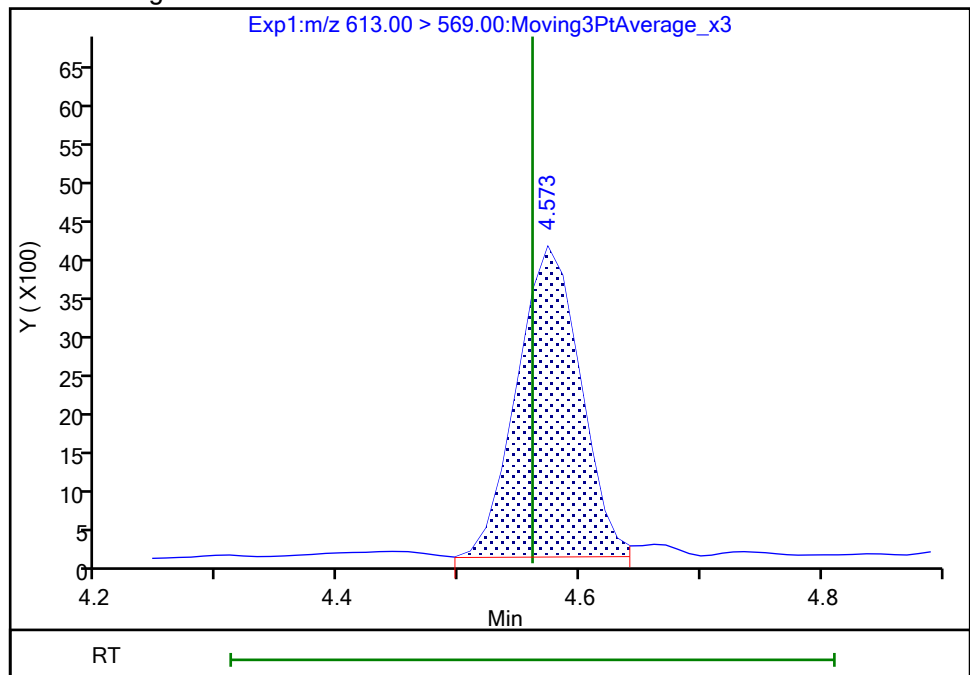
RT: 4.57
Area: 14158
Amount: 0.057365
Amount Units: ng/ml

Processing Integration Results



RT: 4.57
Area: 14788
Amount: 0.059918
Amount Units: ng/ml

Manual Integration Results



Reviewer: deannd, 28-Oct-2020 10:10:01

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

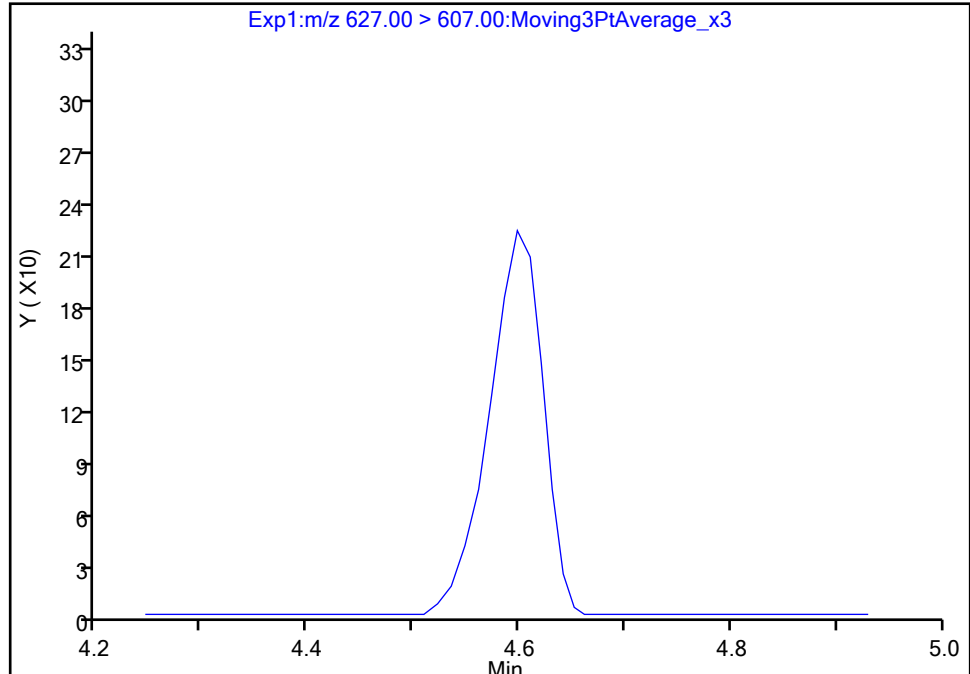
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A05.d
Injection Date: 27-Oct-2020 17:22:13 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

74 1H,1H,2H,2H-perfluorododecanesul, CAS: 120226-60-0

Signal: 1

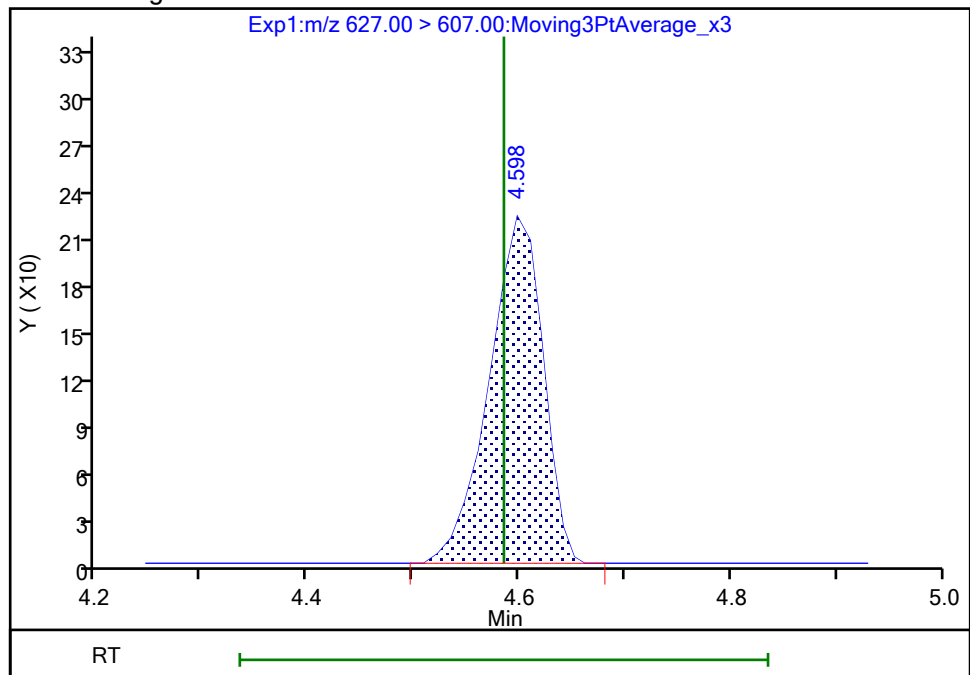
Not Detected
Expected RT: 4.59

Processing Integration Results



RT: 4.60
Area: 771
Amount: 0.048996
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:46:45
Audit Action: Manually Integrated

Audit Reason: Missed Peak
Page 665 of 906

Eurofins TestAmerica, Burlington

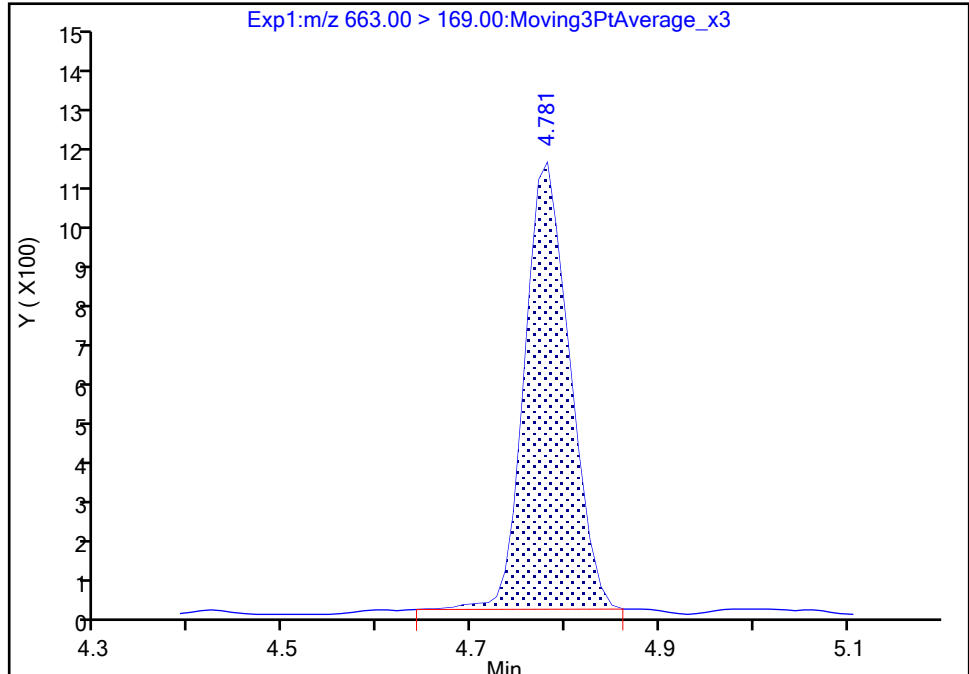
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A05.d
Injection Date: 27-Oct-2020 17:22:13 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

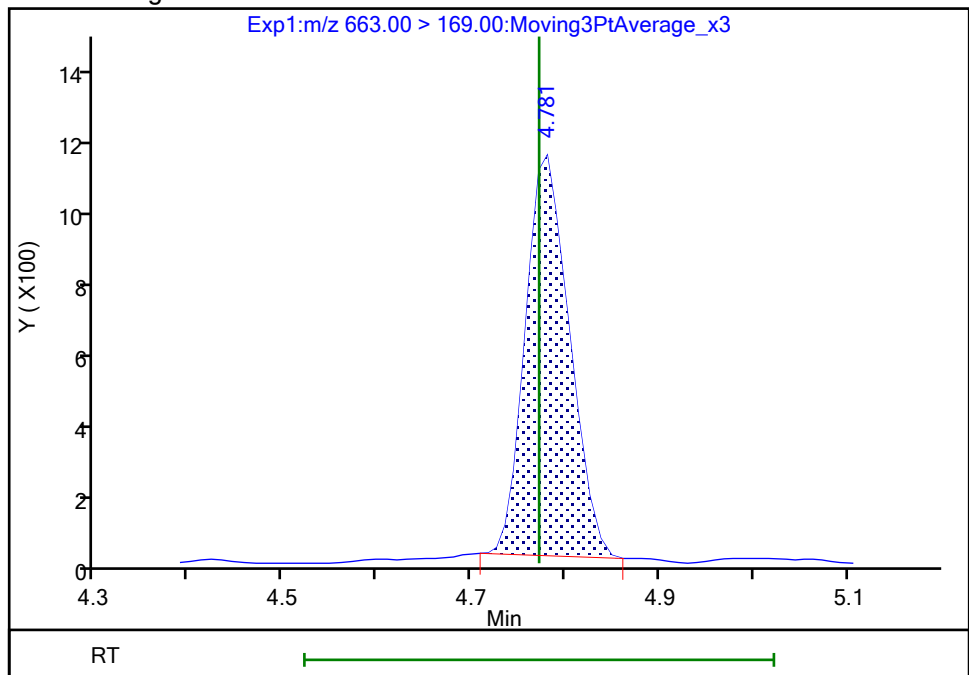
RT: 4.78
Area: 3633
Amount: 0.061239
Amount Units: ng/ml

Processing Integration Results



RT: 4.78
Area: 3544
Amount: 0.061239
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:46:56
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 666 of 906

Eurofins TestAmerica, Burlington

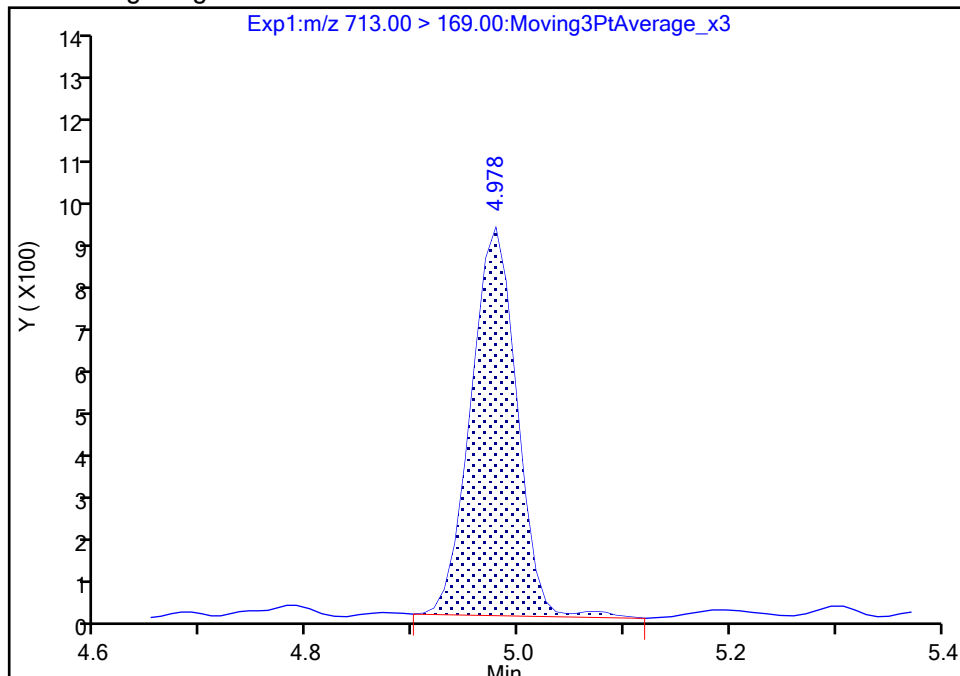
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A05.d
Injection Date: 27-Oct-2020 17:22:13 Instrument ID: LC812
Lims ID: CCVL
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

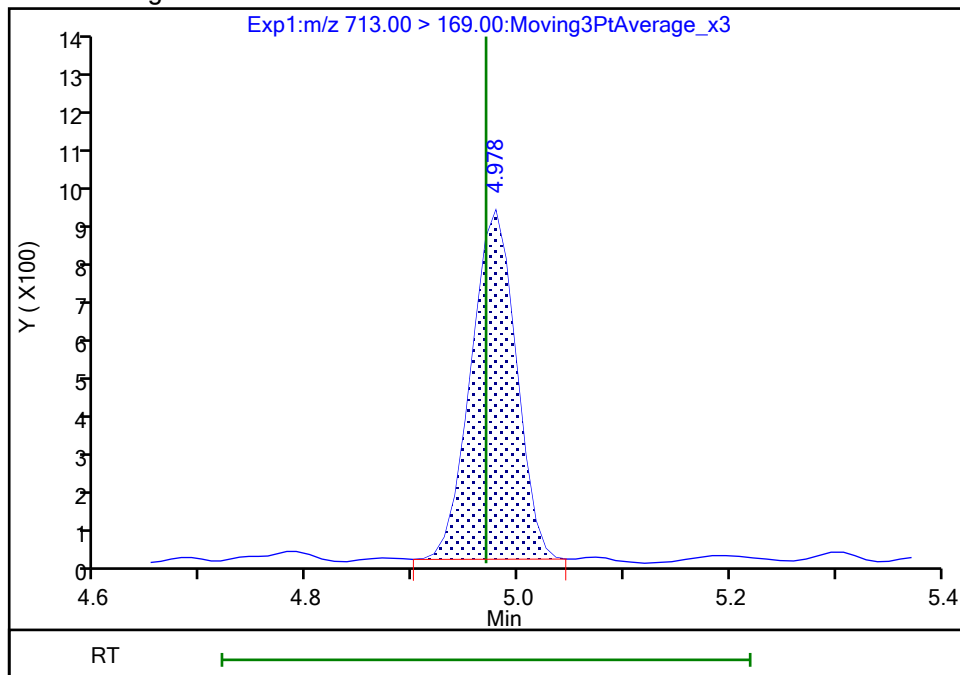
RT: 4.98
Area: 2767
Amount: 0.062880
Amount Units: ng/ml

Processing Integration Results



RT: 4.98
Area: 2699
Amount: 0.061334
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:47:02
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 667 of 906

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1

SDG No.: _____

Lab Sample ID: CCVIS 200-160481/6 Calibration Date: 10/27/2020 17:30

Instrument ID: LC812 Calib Start Date: 09/22/2020 19:30

GC Column: C-18 ID: 4.60 (mm) Calib End Date: 09/22/2020 20:11

Lab File ID: PA201027A06.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9347	0.8617		0.922	1.00	-7.8	40.0
Perfluoropentanoic acid (PFPeA)	AveID	1.056	1.011		0.957	1.00	-4.3	40.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.996	1.008		0.894	0.884	1.1	40.0
1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	AveID	1.616	1.669		0.965	0.934	3.3	50.0
Perfluorohexanoic acid (PFHxA)	AveID	1.007	1.006		0.999	1.00	-0.0	40.0
Perfluoropentanesulfonic acid	AveID	1.184	1.153		0.913	0.938	-2.6	50.0
HFPO-DA	AveID	2.128	1.545		0.726	1.00	-27.4	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.002	0.9701		0.968	1.00	-3.2	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.104	1.079		0.889	0.910	-2.3	40.0
DONA	AveID	3.081	2.777		0.849	0.942	-9.9	50.0
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	AveID	0.7981	0.7519		0.893	0.948	-5.8	40.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.159	1.085		0.892	0.952	-6.3	50.0
Perfluorooctanoic acid (PFOA)	AveID	1.032	1.047		1.01	1.00	1.4	40.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.087	1.002		0.856	0.928	-7.8	40.0
Perfluorononanoic acid (PFNA)	AveID	1.018	1.022		1.00	1.00	0.4	40.0
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	AveID	0.9564	0.8426		0.821	0.932	-11.9	50.0
Perfluorononanesulfonic acid	AveID	0.8588	0.8305		0.928	0.960	-3.3	50.0
Perfluorodecanoic acid (PFDA)	AveID	0.9894	0.9127		0.922	1.00	-7.8	40.0
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	AveID	0.3958	0.3857		0.934	0.958	-2.6	40.0
Perfluorooctanesulfonamide (PFOSA)	AveID	0.9348	0.9803		1.05	1.00	4.9	40.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.9437	0.8950		0.948	1.00	-5.2	40.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.7186	0.6617		0.888	0.964	-7.9	50.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.9863	1.010		1.02	1.00	2.4	40.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.9155	0.9551		1.04	1.00	4.3	40.0
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	AveID	0.8250	0.7455		0.851	0.942	-9.6	50.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9752	0.9138		0.937	1.00	-6.3	40.0
10:2 FTS	AveID	0.2199	0.2230		0.977	0.964	1.4	50.0
Perfluorododecanesulfonic acid (PFDoS)	AveID	0.2306	0.1962		0.824	0.968	-14.9	50.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.8282	0.7606		0.918	1.00	-8.2	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2290	0.2455		1.07	1.00	7.2	40.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Lab Sample ID: CCVIS 200-160481/6 Calibration Date: 10/27/2020 17:30
 Instrument ID: LC812 Calib Start Date: 09/22/2020 19:30
 GC Column: C-18 ID: 4.60 (mm) Calib End Date: 09/22/2020 20:11
 Lab File ID: PA201027A06.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.8812		0.991	1.00	-0.9	40.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	0.7473	0.7565		1.01	1.00	1.2	50.0
13C4 PFBA	Ave	1.433	1.584		1.38	1.25	10.6	50.0
13C5 PFPeA	Ave	1.027	1.082		1.32	1.25	5.4	50.0
13C3 PFBS	Ave	1.251	1.286		1.20	1.16	2.8	50.0
M2-4:2 FTS	Ave	0.0939	0.0919		1.14	1.17	-2.2	50.0
13C2 PFHxA	Ave	1.058	1.122		1.33	1.25	6.1	50.0
13C3 HFPO-DA	Ave	0.0985	0.1531		1.94	1.25	55.4*	50.0
13C4 PFHpA	Ave	0.9620	1.025		1.33	1.25	6.6	50.0
18O2 PFHxS	Ave	0.8974	0.9788		1.29	1.18	9.1	50.0
M2-6:2 FTS	Ave	0.1199	0.1266		1.25	1.19	5.6	50.0
13C4 PFOA	Ave	0.9845	0.9520		1.21	1.25	-3.3	50.0
13C4 PFOS	Ave	0.7341	0.8201		1.34	1.20	11.7	50.0
13C5 PFNA	Ave	0.8296	0.8021		1.21	1.25	-3.3	50.0
13C2 PFDA	Ave	0.7956	0.7781		1.22	1.25	-2.2	50.0
M2-8:2 FTS	Ave	0.1413	0.1525		1.29	1.20	7.9	50.0
13C8 FOSA	Ave	1.282	1.291		1.26	1.25	0.7	50.0
d3-NMeFOSAA	Ave	0.0453	0.0392		1.08	1.25	-13.4	50.0
13C2 PFUnA	Ave	0.6006	0.5374		1.12	1.25	-10.5	50.0
d5-NEtFOSAA	Ave	0.0487	0.0431		1.11	1.25	-11.5	50.0
13C2 PFDoA	Ave	0.6348	0.5733		1.13	1.25	-9.7	50.0
13C2 PFTeDA	Ave	0.4522	0.4043		1.12	1.25	-10.6	50.0
13C2 PFHxDA	Ave	0.5124	0.4204		1.03	1.25	-18.0	50.0

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A06.d
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 27-Oct-2020 17:30:29 ALS Bottle#: 3 Worklist Smp#: 6
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: CCVIS
 Misc. Info.: 200-0043412-006 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Sublist: chrom-PFC_LC812*sub3
 Method: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 28-Oct-2020 13:19:14 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1652

First Level Reviewer: chirgwinb

Date: 27-Oct-2020 17:49:43

Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.981	1.981	0.0	0.574	843132	1.38		111	15741	
2 Perfluorobutanoic acid										
212.90 > 169.00	1.990	1.990	0.0	1.005	581221	0.9219		92.2	241	
D 3 13C5 PFPeA										
267.90 > 223.00	2.326	2.326	0.0	0.674	576023	1.32		105	3589	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.326	2.326	0.0	1.000	465921	0.9574		95.7	44.0	M
D 47 13C3 PFBS										
301.90 > 80.00	2.339	2.339	0.0	0.678	636638	1.20		103	245731	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.353	2.353	0.0	1.006	487836	0.8940	Target=2.07	101	1465	
298.90 > 99.00	2.339	2.353	-0.014	1.000	234376		2.08(1.04-3.11)		436	
D 60 M2-4:2 FTS										M
329.00 > 81.00	2.665	2.665	0.0	0.773	45691	1.14		97.8	104	M
61 1H,1H,2H,2H-perfluorohexanesulfo										
327.00 > 307.00	2.665	2.665	0.0	1.000	61011	0.9646		103	584	
D 7 13C2 PFHxA										
315.00 > 270.00	2.703	2.703	0.0	0.784	596969	1.33		106	4690	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.703	2.703	0.0	1.000	480588	1.00	Target=12.44	99.9	351	
313.00 > 119.00	2.703	2.703	0.0	1.000	41240		11.65(6.22-18.66)		111	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.703	2.703	0.0	0.876	450585	0.9132	Target=3.64	97.4	1404	
349.00 > 99.00	2.703	2.703	0.0	0.876	130689		3.45(1.82-5.46)		553	
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.810	2.810	0.0	0.815	81495	1.94		155	987	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
67 Perfluoro(2-propoxypropanoic) ac										M
329.10 > 285.00	2.818	2.818	0.0	1.003	100756	0.7263		72.6	50.0	M
D 11 18O2 PFHxS										
403.00 > 84.00	3.084	3.084	0.0	0.894	492784	1.29		109	2120	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.084	3.084	0.0	1.000	409214	0.8891	Target=4.60	97.7	1528	
399.00 > 99.00	3.084	3.084	0.0	1.000	87757		4.66(2.30-6.91)		204	
D 9 13C4 PFHpA										
367.00 > 322.00	3.084	3.084	0.0	0.894	545504	1.33		107	2475	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.084	3.084	0.0	1.000	423342	0.9681	Target=3.34	96.8	241	
363.00 > 169.00	3.084	3.084	0.0	1.000	130699		3.24(1.67-5.01)		606	
77 DONA										
377.00 > 251.00	3.124	3.124	0.0	0.830	913355	0.8490	Target=2.44	90.1	2767	
377.00 > 85.00	3.124	3.124	0.0	0.830	382034		2.39(1.22-3.67)		1289	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.441	3.441	0.0	0.914	360649	0.8916	Target=7.08	93.7	1830	
449.00 > 99.00	3.441	3.441	0.0	0.914	51472		7.01(3.54-10.63)		569	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.441	3.441	0.0	0.997	64008	1.25		106	349	
13 1H,1H,2H,2H-perfluorooctanesulfo										
427.00 > 407.00	3.441	3.441	0.0	1.000	38423	0.8932		94.2	781	
D 14 13C4 PFOA										
417.00 > 372.00	3.450	3.450	0.0	1.000	506669	1.21		96.7	3375	
* 62 13C2 PFOA										
415.00 > 370.00	3.450	3.450	0.0		532190	1.25			3598	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.458	3.458	0.0	1.003	424191	1.01	Target=2.29	101	328	
413.00 > 169.00	3.458	3.458	0.0	1.003	195449		2.17(1.14-3.43)		824	
D 18 13C4 PFOS										
503.00 > 80.00	3.765	3.765	0.0	1.091	417237	1.34		112	1752	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.765	3.765	0.0	1.000	324621	0.8556	Target=7.10	92.2	351	M
499.00 > 99.00	3.765	3.765	0.0	1.000	44599		7.28(3.55-10.64)		429	M
D 19 13C5 PFNA										
468.00 > 423.00	3.786	3.786	0.0	1.098	426890	1.21		96.7	3709	
20 Perfluorononanoic acid										
463.00 > 419.00	3.786	3.786	0.0	1.000	349162	1.00	Target=5.83	100	165	
463.00 > 169.00	3.786	3.786	0.0	1.000	62730		5.57(2.91-8.74)		1309	
69 9-Chlorohexadecafluoro-3-oxanona										
531.00 > 351.00	3.922	3.922	0.0	1.042	274178	0.8211		88.1	1861	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.052	4.052	0.0	1.076	278387	0.9284	Target=3.38	96.7	2197	
549.00 > 99.00	4.052	4.052	0.0	1.076	74741		3.72(1.69-5.08)		685	
D 23 13C2 PFDA										
515.00 > 470.00	4.082	4.082	0.0	1.183	414075	1.22		97.8	3246	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
24 Perfluorodecanoic acid										
513.00 > 469.00	4.082	4.082	0.0	1.000	302339	0.9225	Target=6.81 6.50(3.41-10.22)	92.2	666	
513.00 > 169.00	4.082	4.082	0.0	1.000	46511				701	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.092	4.092	0.0	1.186	77726	1.29		108	269	
25 1H,1H,2H,2H-perfluorodecanesulfo										
527.00 > 507.00	4.092	4.092	0.0	1.000	23985	0.9335		97.4	880	
D 21 13C8 FOSA										
506.00 > 78.00	4.139	4.139	0.0	1.200	687159	1.26		101	2679	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.139	4.139	0.0	1.000	538890	1.05		105	1615	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.214	4.214	0.0	1.221	20878	1.08		86.6	125	
28 N-methylperfluorooctanesulfonami										
570.00 > 419.00	4.224	4.224	0.0	1.002	14949	0.9484		94.8	429	M
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.309	4.309	0.0	1.144	222726	0.8878	Target=3.31 3.00(1.66-4.97)	92.1	1713	
599.00 > 99.00	4.309	4.309	0.0	1.144	74147				510	
D 30 13C2 PFUnA										
565.00 > 520.00	4.343	4.343	0.0	1.259	286019	1.12		89.5	4373	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.343	4.343	0.0	1.000	231092	1.02	Target=6.57 6.30(3.28-9.85)	102	539	
563.00 > 169.00	4.332	4.343	-0.011	0.997	36706				816	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.343	4.343	0.0	1.259	22940	1.11		88.5	555	
33 N-ethylperfluorooctanesulfonamid										
584.00 > 419.00	4.355	4.355	0.0	1.003	17528	1.04		104	581	M
66 11-Chloroeicosafuoro-3-oxaundec										
631.00 > 451.00	4.422	4.422	0.0	1.174	245182	0.8512		90.4	4495	
D 36 13C2 PFDaA										
615.00 > 570.00	4.561	4.561	0.0	1.322	305107	1.13		90.3	5324	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.561	4.561	0.0	1.000	223056	0.9371	Target=5.16 4.84(2.58-7.75)	93.7	403	
613.00 > 169.00	4.561	4.561	0.0	1.000	46087				990	
74 1H,1H,2H,2H-perfluorododecanesul										
627.00 > 607.00	4.585	4.585	0.0	1.121	13951	0.9773		101	664	
75 Perfluorododecanesulfonic acid (										
699.00 > 80.00	4.736	4.736	0.0	1.258	66321	0.8238	Target=0.45 0.45(0.22-0.67)	85.1	415	
699.00 > 99.00	4.736	4.736	0.0	1.258	148224				1087	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.772	4.772	0.0	1.046	185640	0.9183	Target=3.30 3.03(1.65-4.95)	91.8	263	M
663.00 > 169.00	4.772	4.772	0.0	1.046	61273				1780	M
D 43 13C2 PFTeDA										
715.00 > 670.00	4.969	4.969	0.0	1.440	215190	1.12		89.4	2636	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.969	4.969	0.0	1.000	42263	1.07	Target=1.06 1.06(0.53-1.59)	107	1183	
713.00 > 219.00	4.960	4.969	-0.009	0.998	39846				1523	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags

D 44 13C2 PFHxDA

815.00 > 770.00 5.329 5.329 0.0 1.545 223750 1.03 82.0 2947

45 Perfluorohexadecanoic acid

813.00 > 769.00 5.329 5.329 0.0 1.000 157727 0.99 Target=3.06 99.1 175

813.00 > 169.00 5.329 5.329 0.0 1.000 56196 2.81(1.53-4.58) 1286

46 Perfluorooctadecanoic acid

913.00 > 869.00 5.694 5.694 0.0 1.068 135406 1.01 Target=2.82 101 361

913.00 > 169.00 5.685 5.694 -0.009 1.067 51872 2.61(1.41-4.24) 982

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

PFAS32NCIC4_00012

Amount Added: 100.00

Units: uL

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A06.d

Injection Date: 27-Oct-2020 17:30:29

Instrument ID: LC812

Lims ID: CCVIS

Client ID:

Operator ID: lc812tech

ALS Bottle#: 3

Worklist Smp#: 6

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

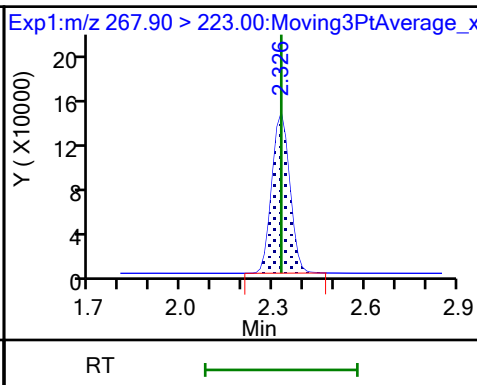
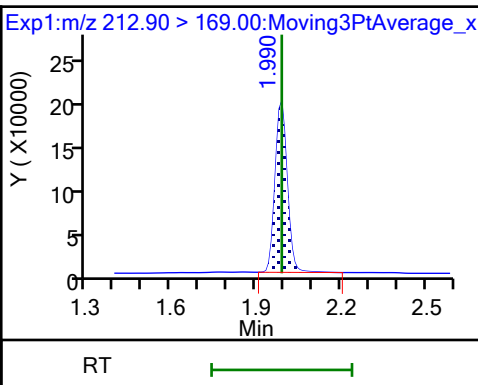
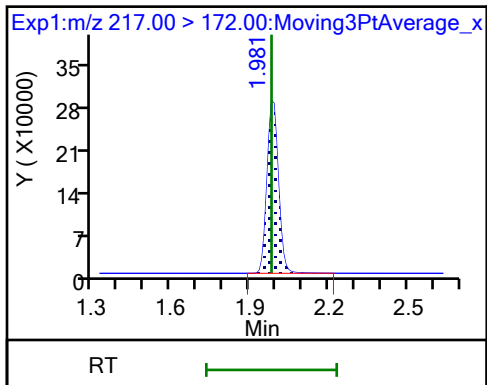
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid

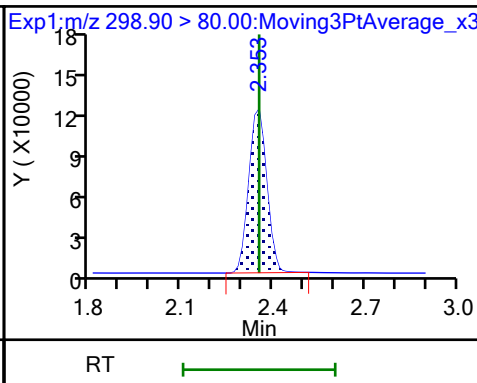
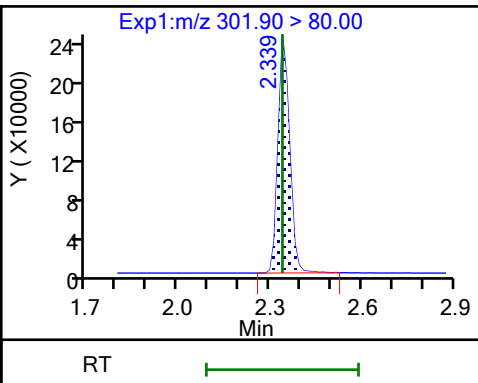
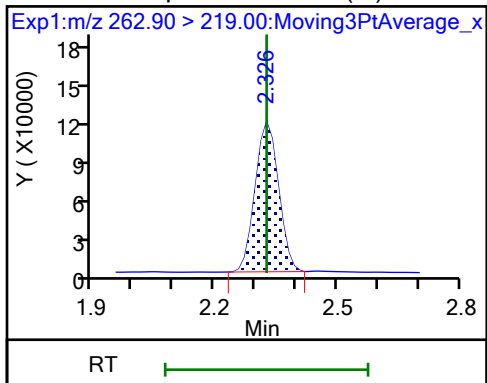
D 3 13C5 PFPeA



4 Perfluoropentanoic acid (M)

D 47 13C3 PFBS

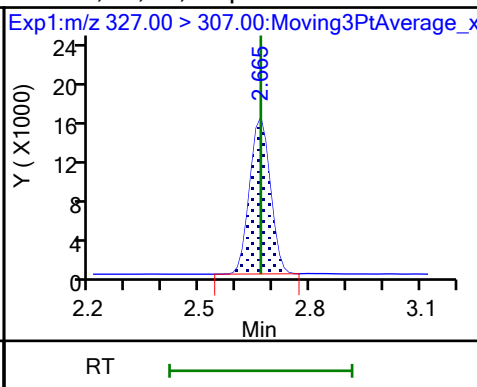
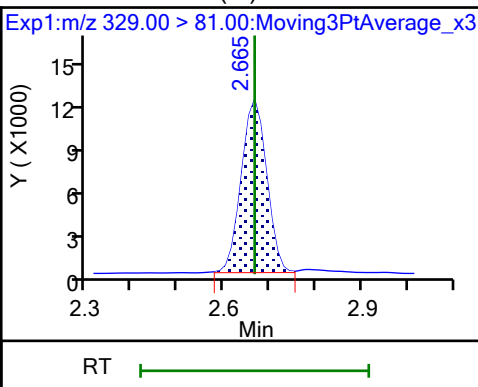
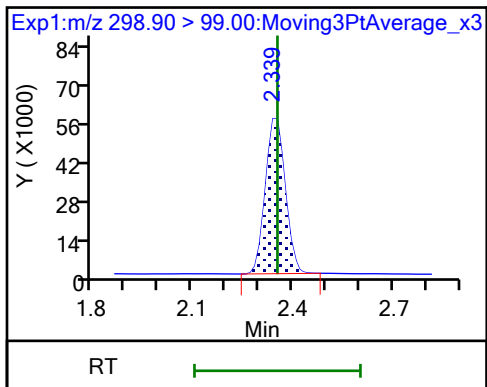
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

D 60 M2-4:2 FTS (M)

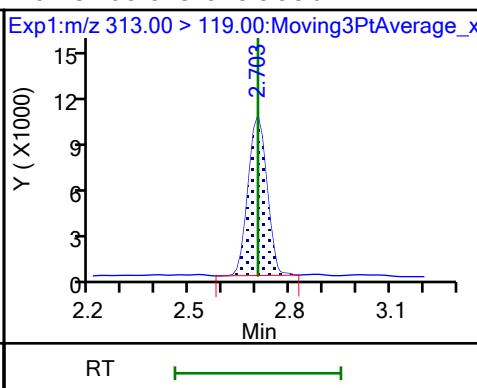
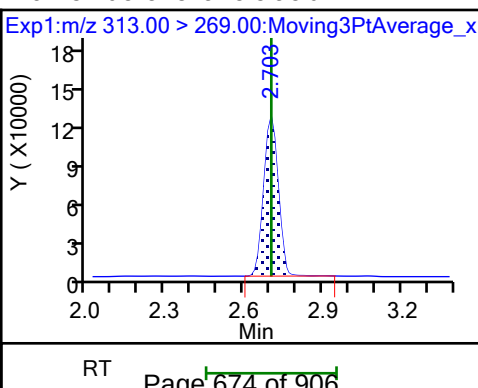
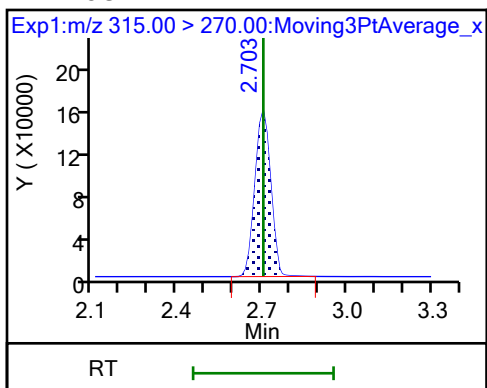
61 1H,1H,2H,2H-perfluorohexanesulfo

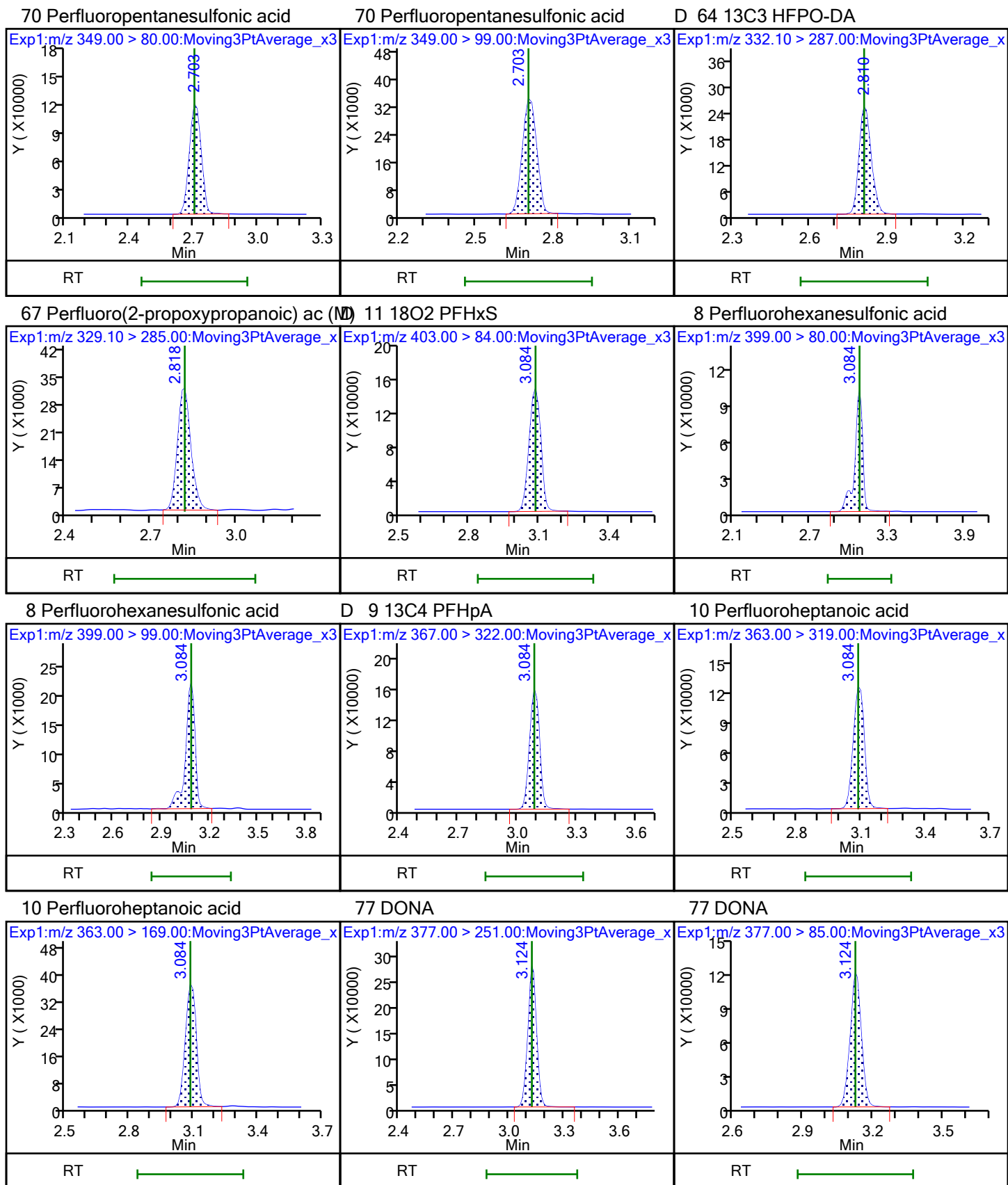


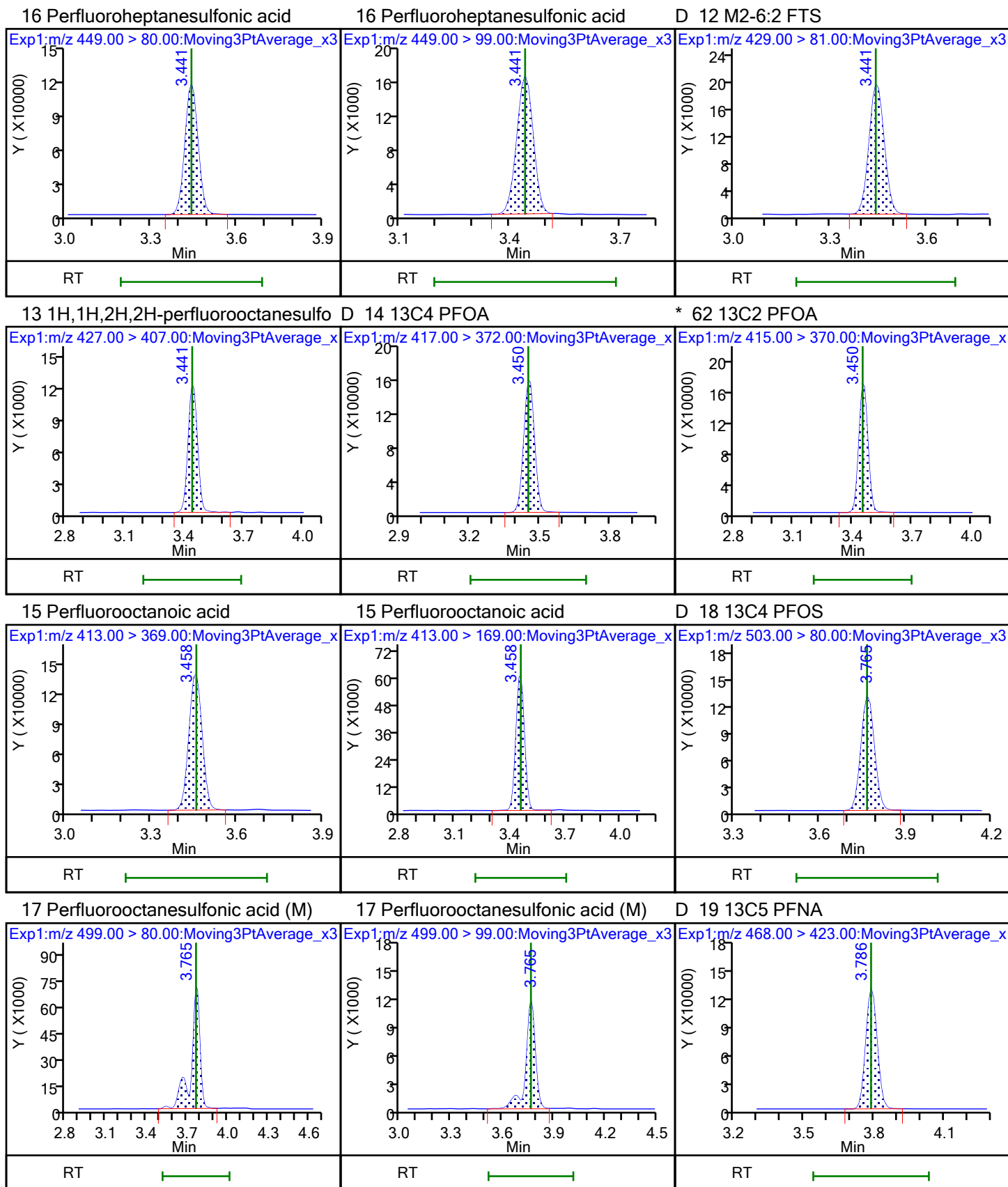
D 7 13C2 PFHxA

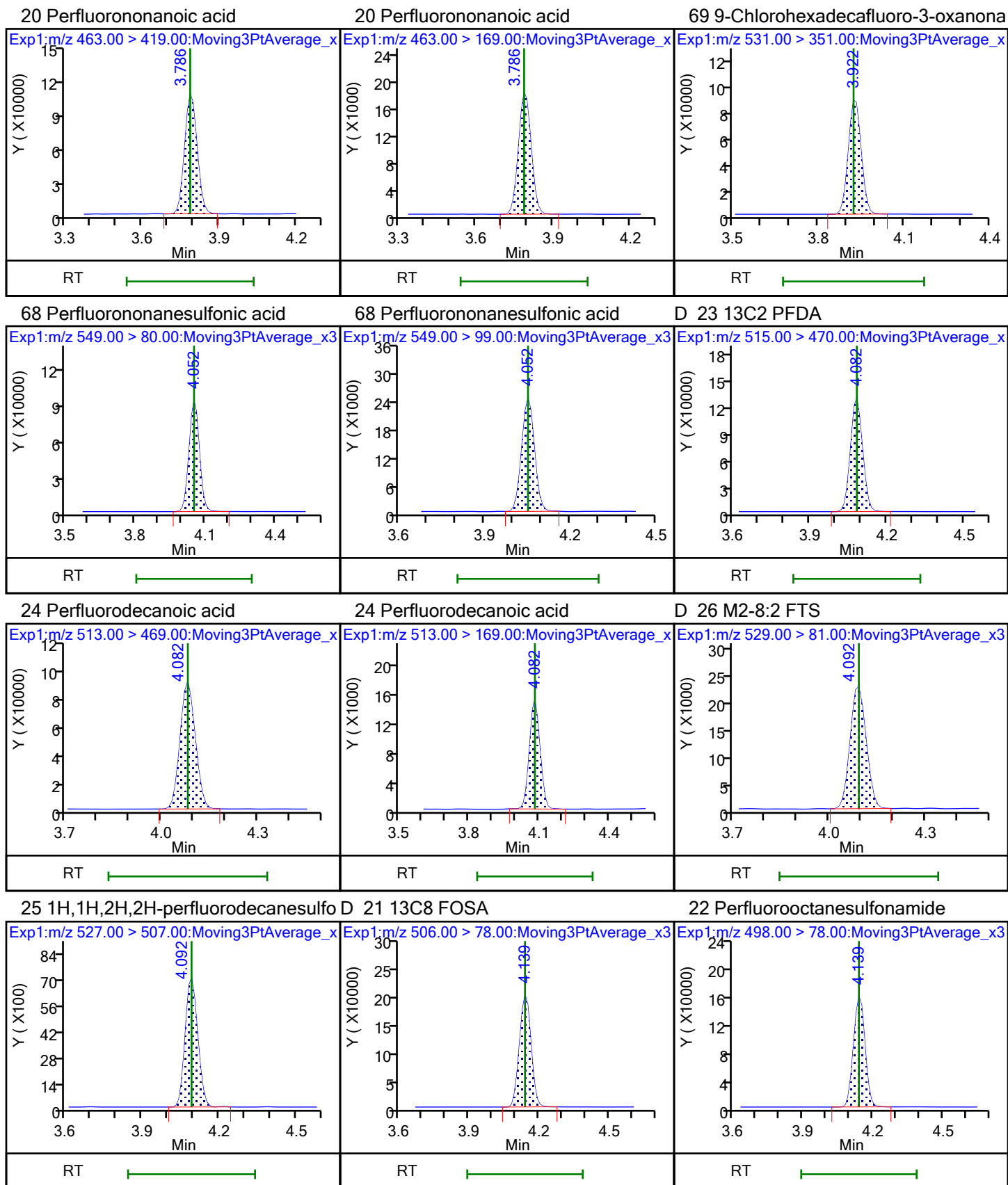
6 Perfluorohexanoic acid

6 Perfluorohexanoic acid



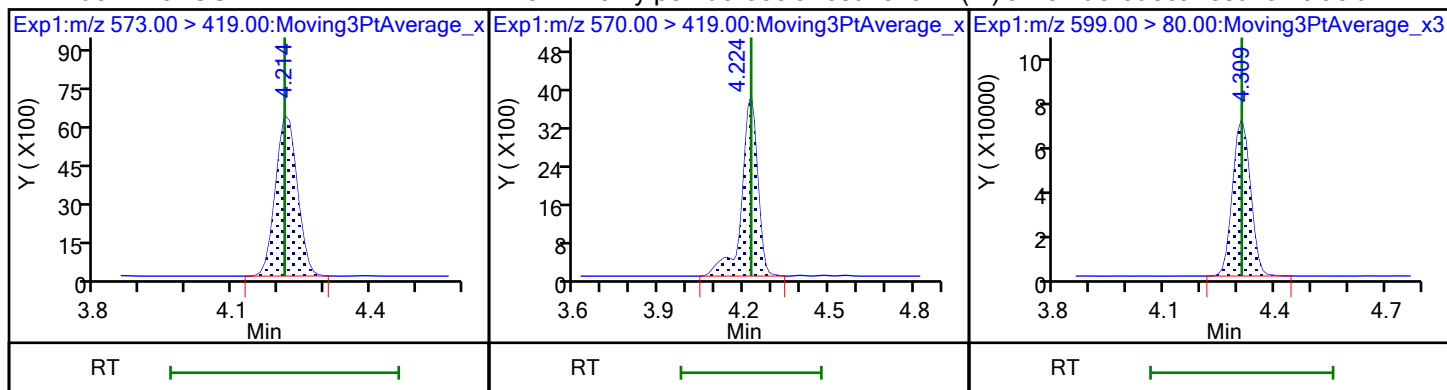






D 27 d3-NMeFOSAA

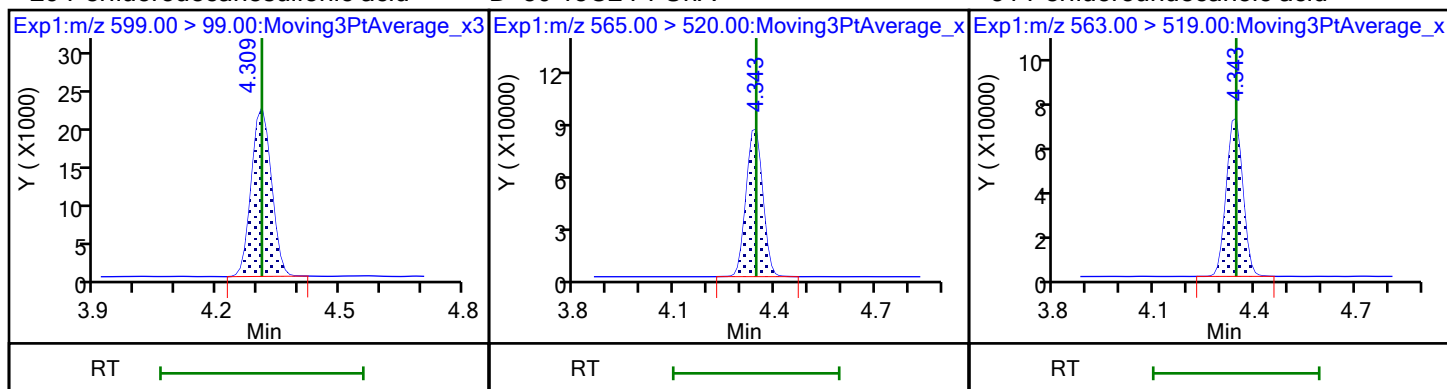
28 N-methylperfluorooctanesulfonami (M29 Perfluorodecanesulfonic acid



29 Perfluorodecanesulfonic acid

D 30 13C2 PFUnA

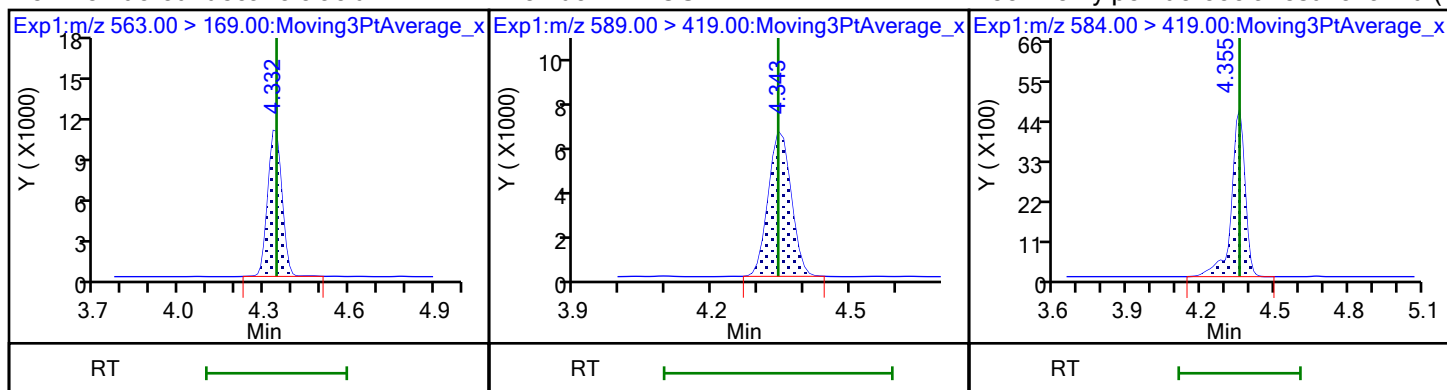
31 Perfluoroundecanoic acid



31 Perfluoroundecanoic acid

D 32 d5-NEtFOSAA

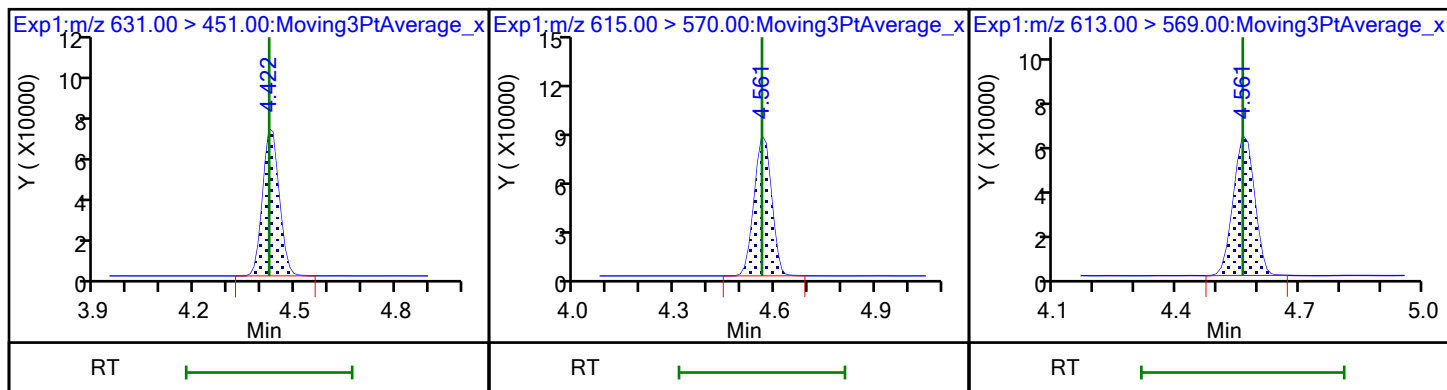
33 N-ethylperfluorooctanesulfonamid (M



66 11-Chloroeicosafluoro-3-oxaundec

D 36 13C2 PFDaA

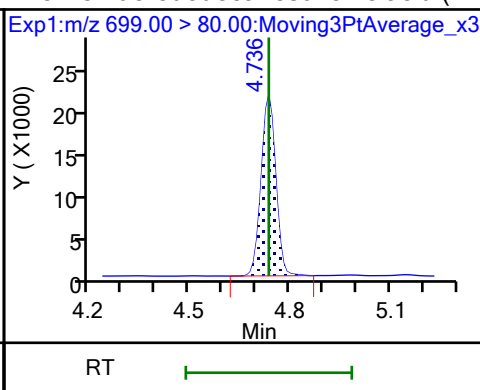
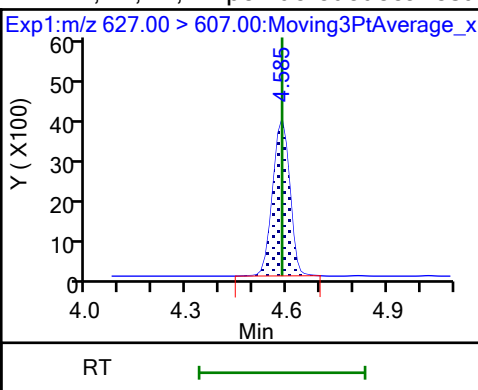
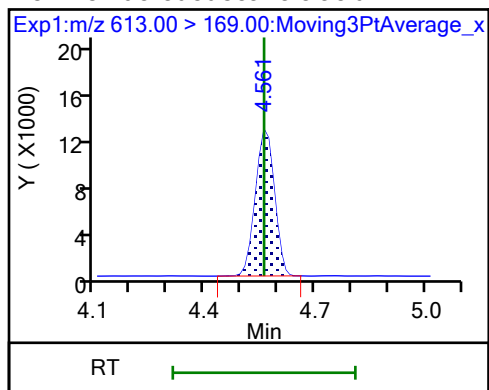
37 Perfluorododecanoic acid



37 Perfluorododecanoic acid

74 1H,1H,2H,2H-perfluorododecanesul

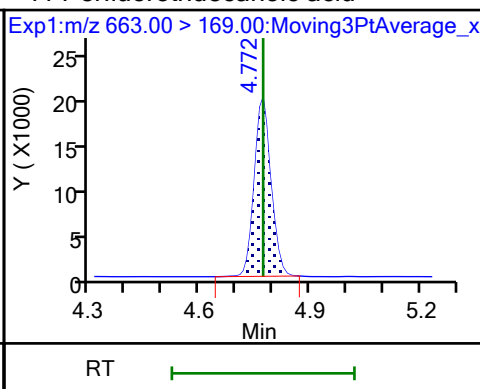
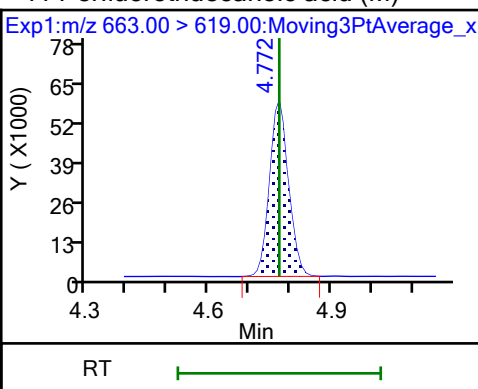
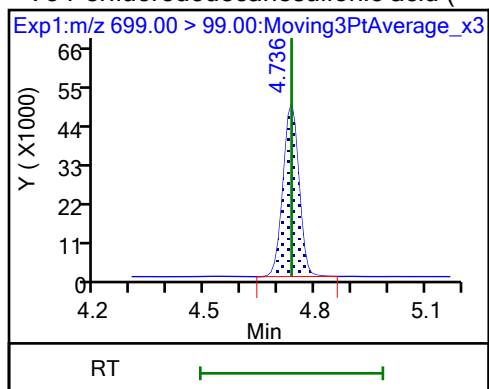
75 Perfluorododecanesulfonic acid (



75 Perfluorododecanesulfonic acid (

41 Perfluorotridecanoic acid (M)

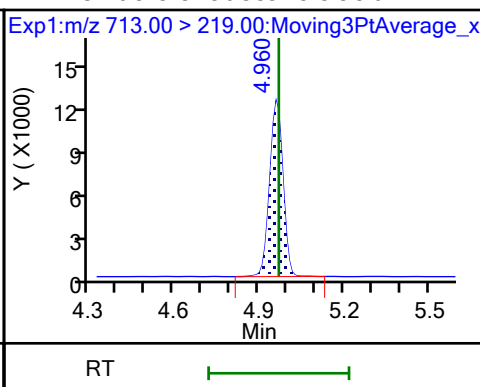
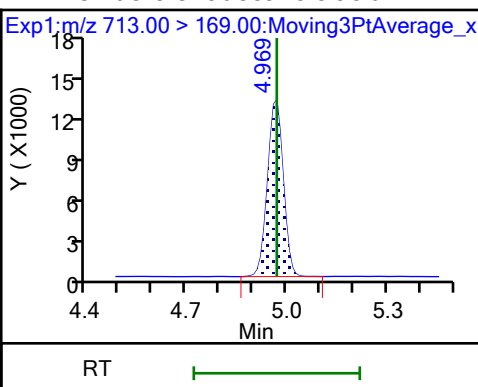
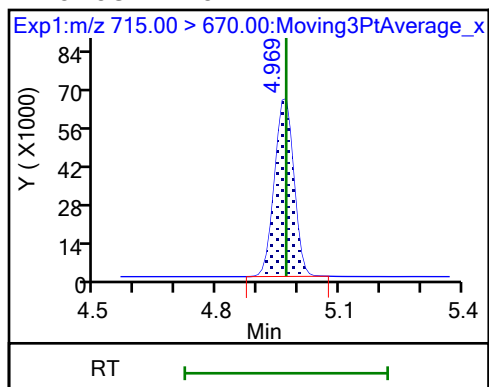
41 Perfluorotridecanoic acid



D 43 13C2 PFTeDA

42 Perfluorotetradecanoic acid

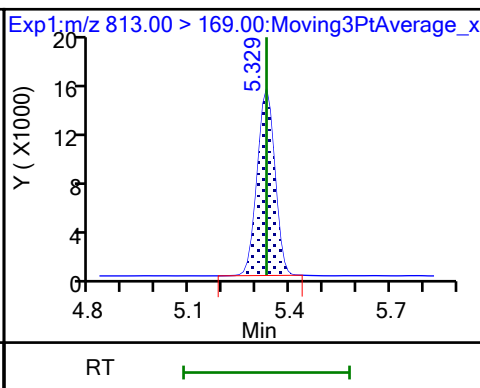
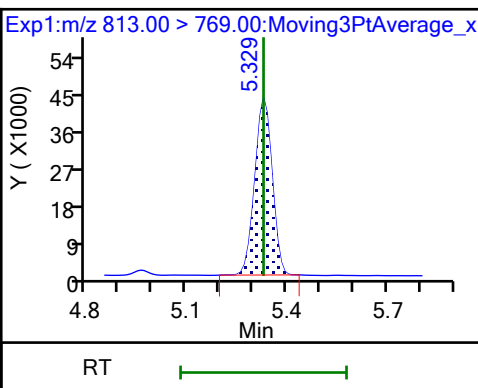
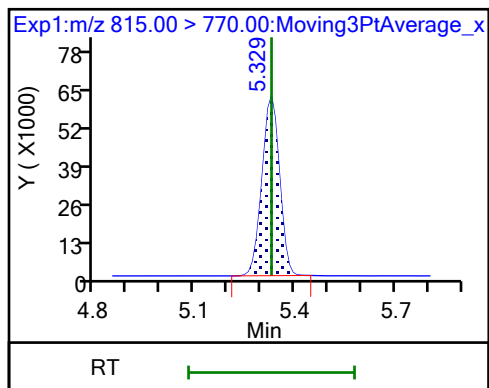
42 Perfluorotetradecanoic acid



D 44 13C2 PFHxDA

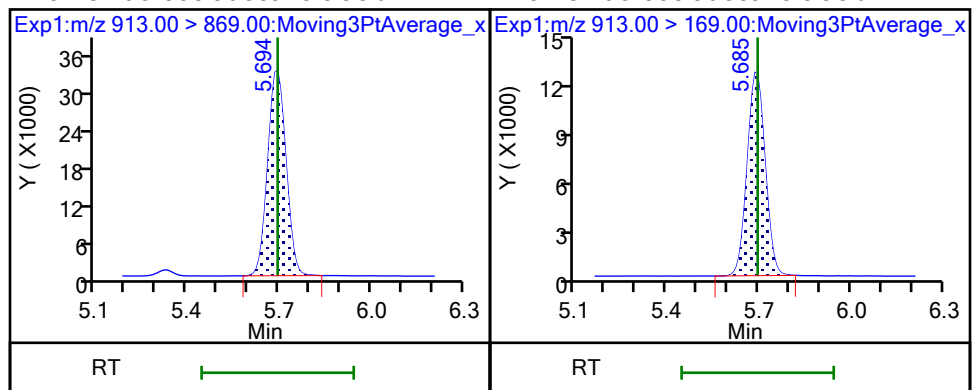
45 Perfluorohexadecanoic acid

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid

46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

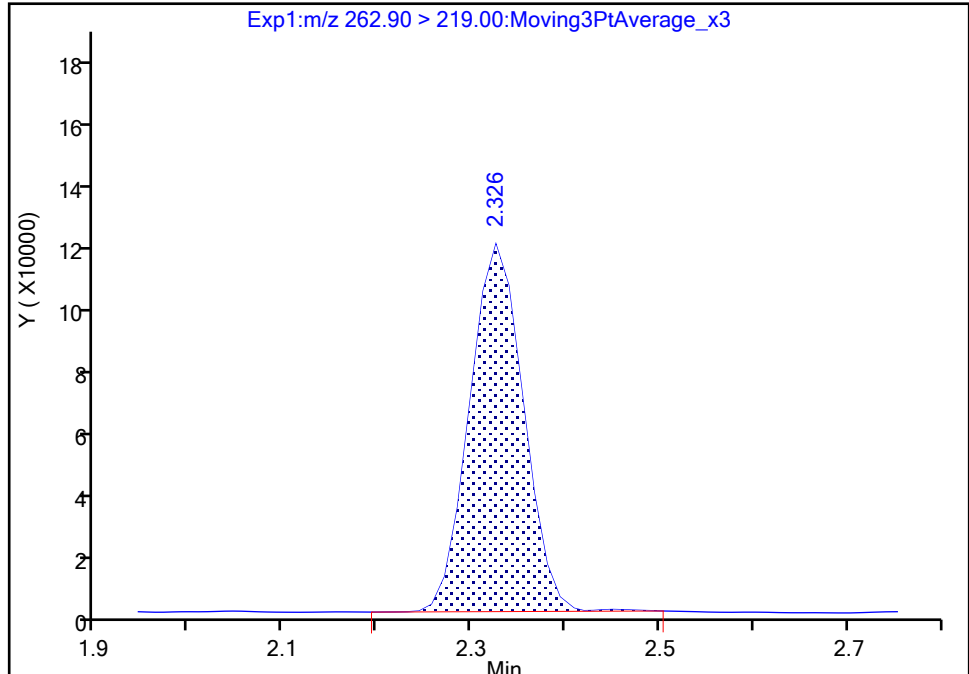
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A06.d
Injection Date: 27-Oct-2020 17:30:29 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

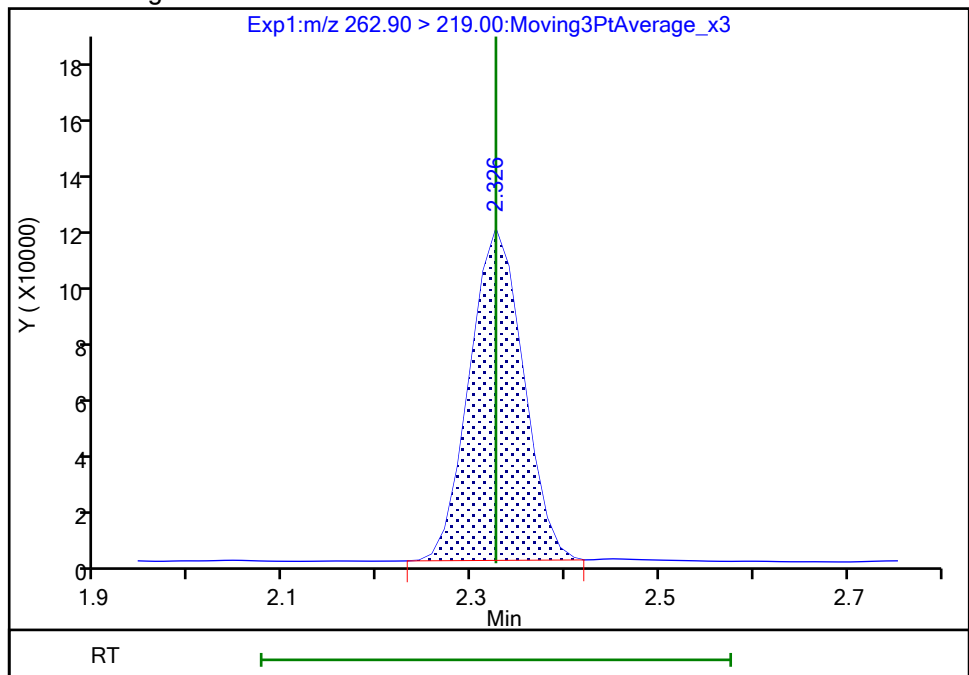
RT: 2.33
Area: 468883
Amount: 0.963468
Amount Units: ng/ml

Processing Integration Results



RT: 2.33
Area: 465921
Amount: 0.957382
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:47:32
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 681 of 906

Eurofins TestAmerica, Burlington

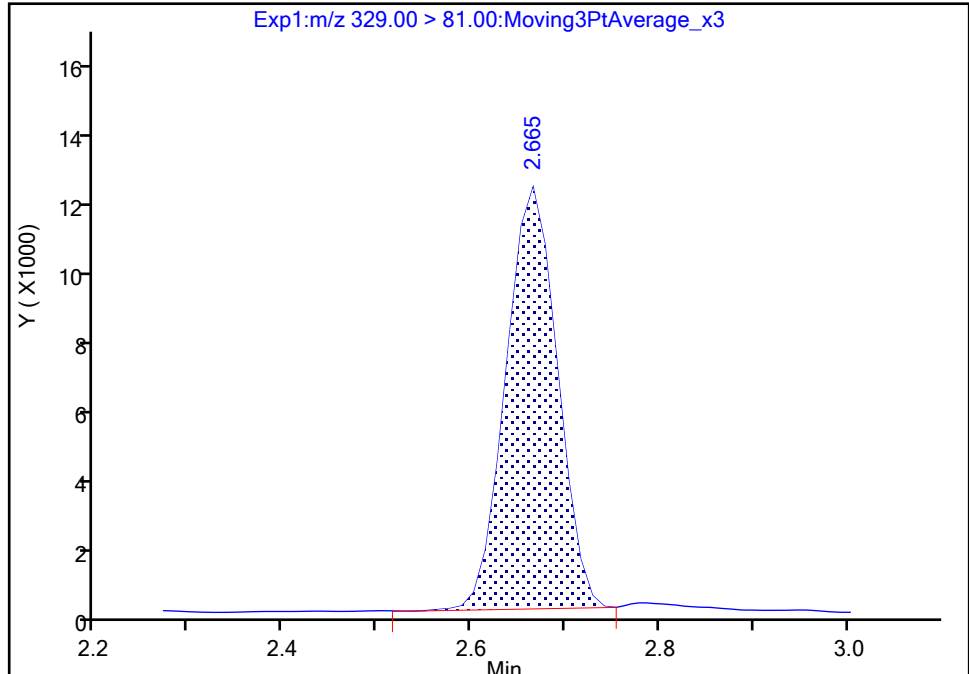
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A06.d
Injection Date: 27-Oct-2020 17:30:29 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

D 60 M2-4:2 FTS, CAS: STL02395

Signal: 1

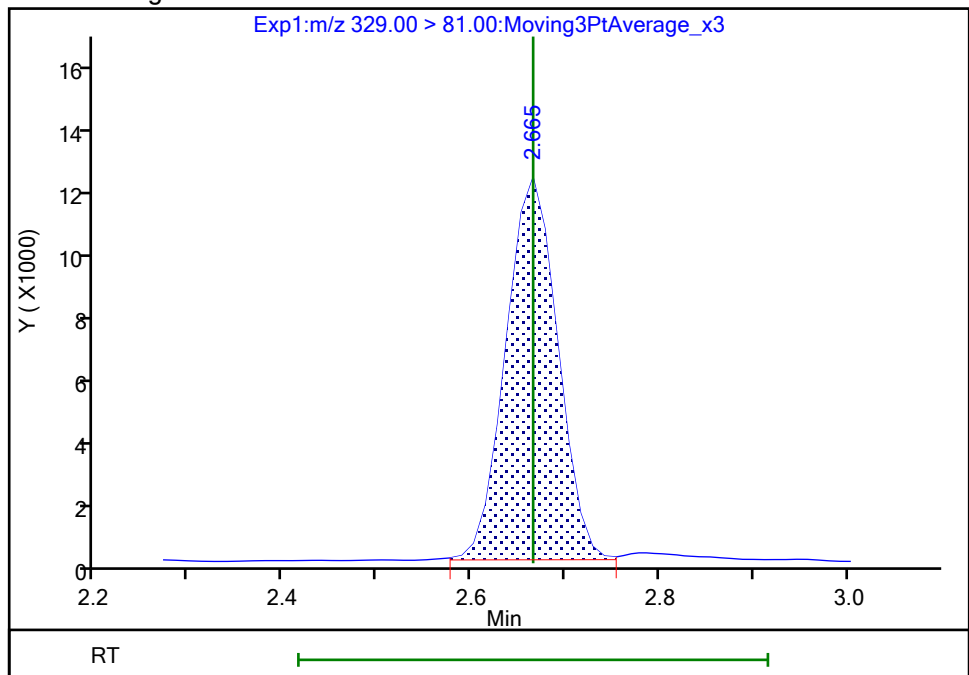
RT: 2.67
Area: 45269
Amount: 1.131792
Amount Units: ng/ml

Processing Integration Results



RT: 2.67
Area: 45691
Amount: 1.142343
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:47:48

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

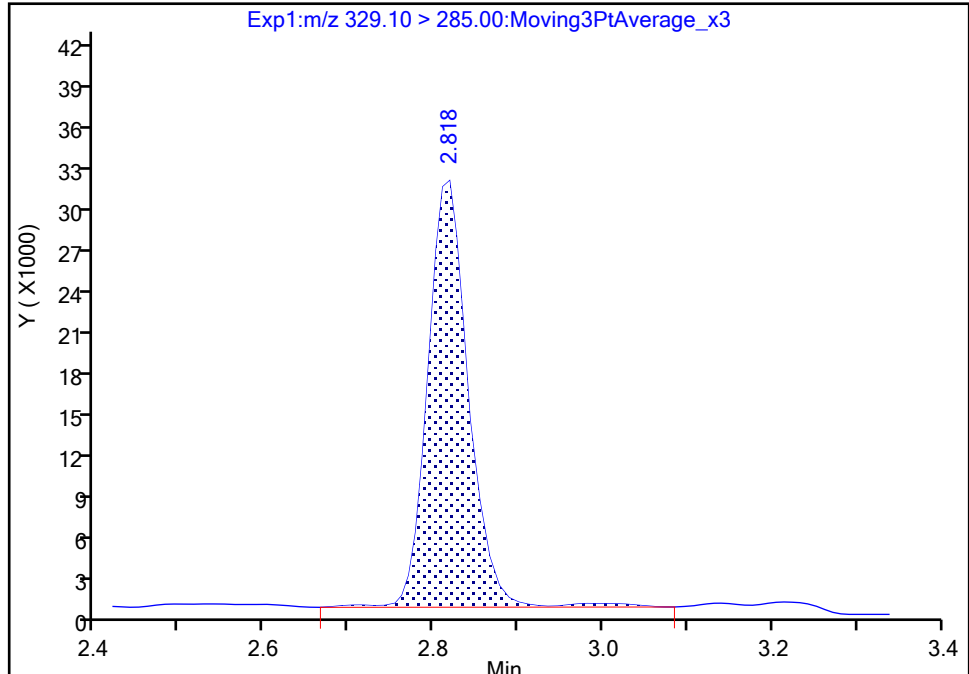
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A06.d
Injection Date: 27-Oct-2020 17:30:29 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

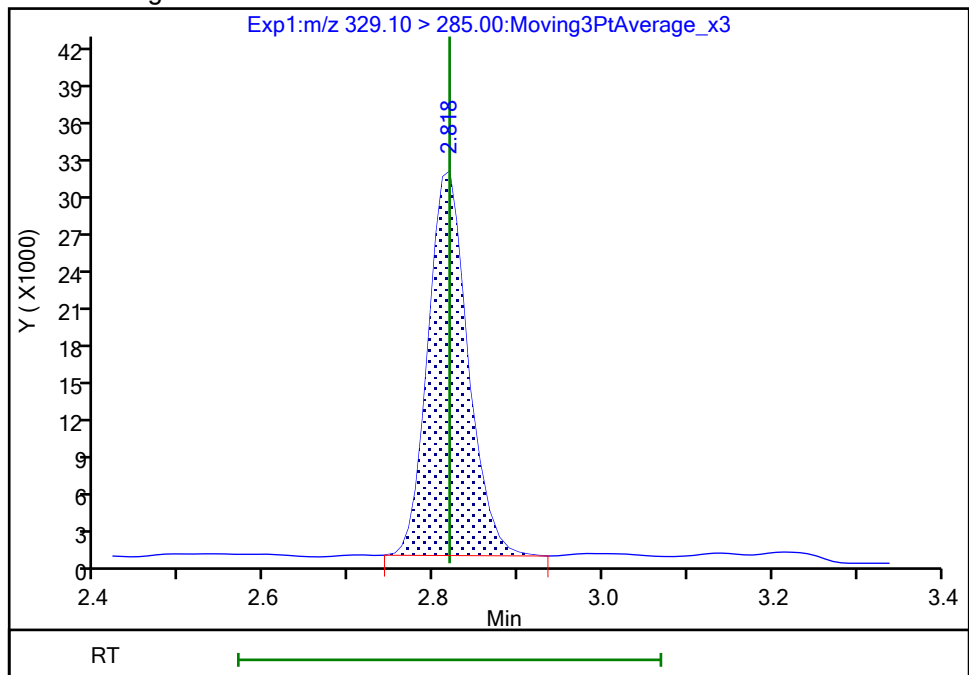
RT: 2.82
Area: 103585
Amount: 0.746694
Amount Units: ng/ml

Processing Integration Results



RT: 2.82
Area: 100756
Amount: 0.726301
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:47:59
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 683 of 906

Eurofins TestAmerica, Burlington

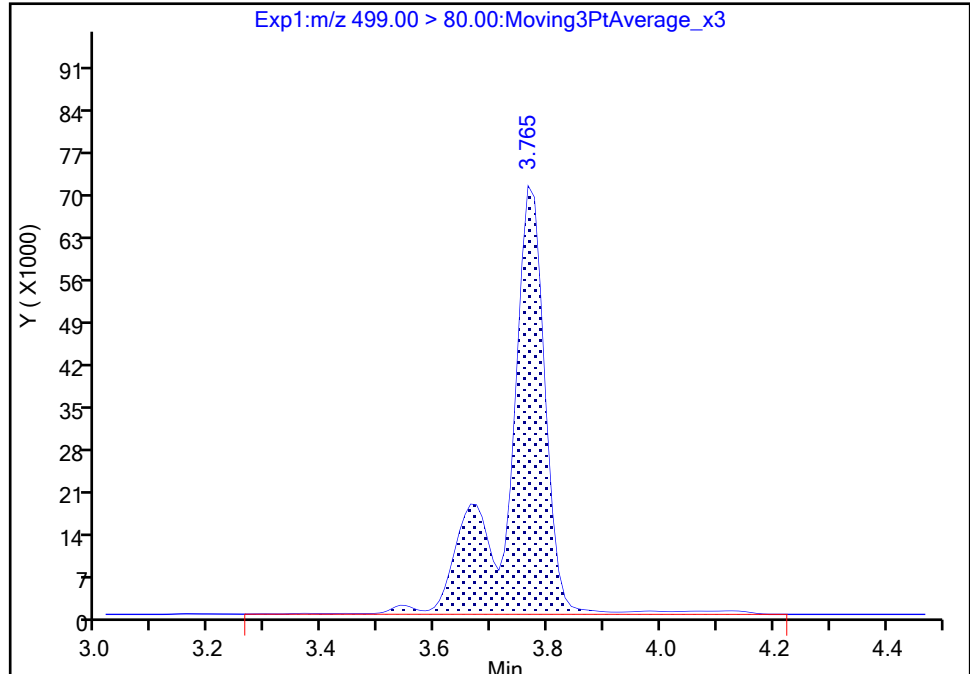
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A06.d
Injection Date: 27-Oct-2020 17:30:29 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

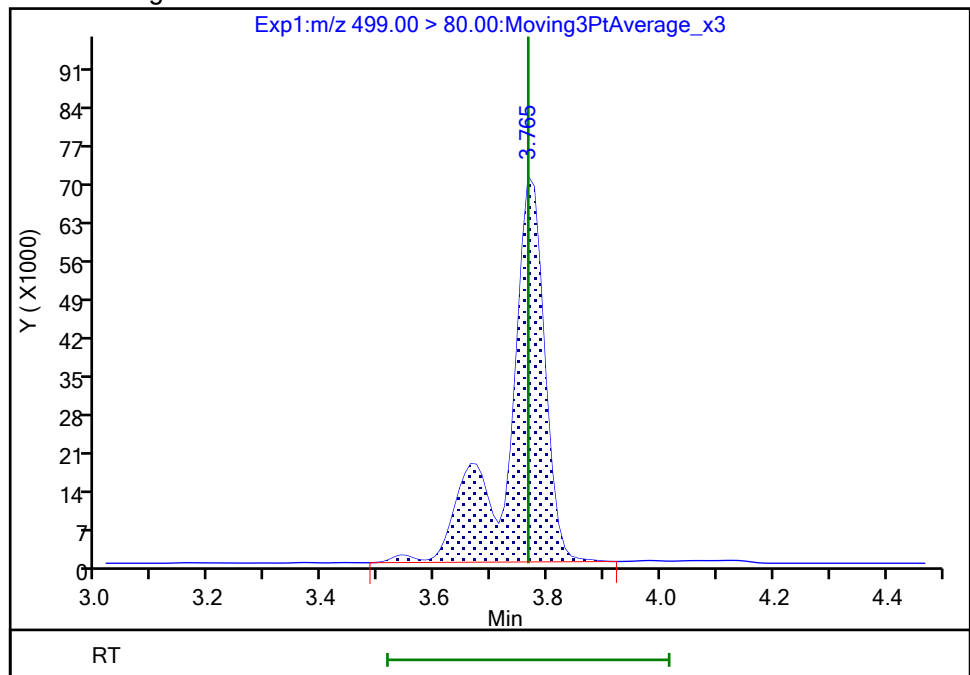
RT: 3.77
Area: 336885
Amount: 0.887893
Amount Units: ng/ml

Processing Integration Results



RT: 3.77
Area: 324621
Amount: 0.855570
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:48:25
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 684 of 906

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A06.d

Injection Date: 27-Oct-2020 17:30:29

Instrument ID: LC812

Lims ID: CCVIS

Client ID:

Operator ID: lc812tech

ALS Bottle#:

3

Worklist Smp#:

6

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

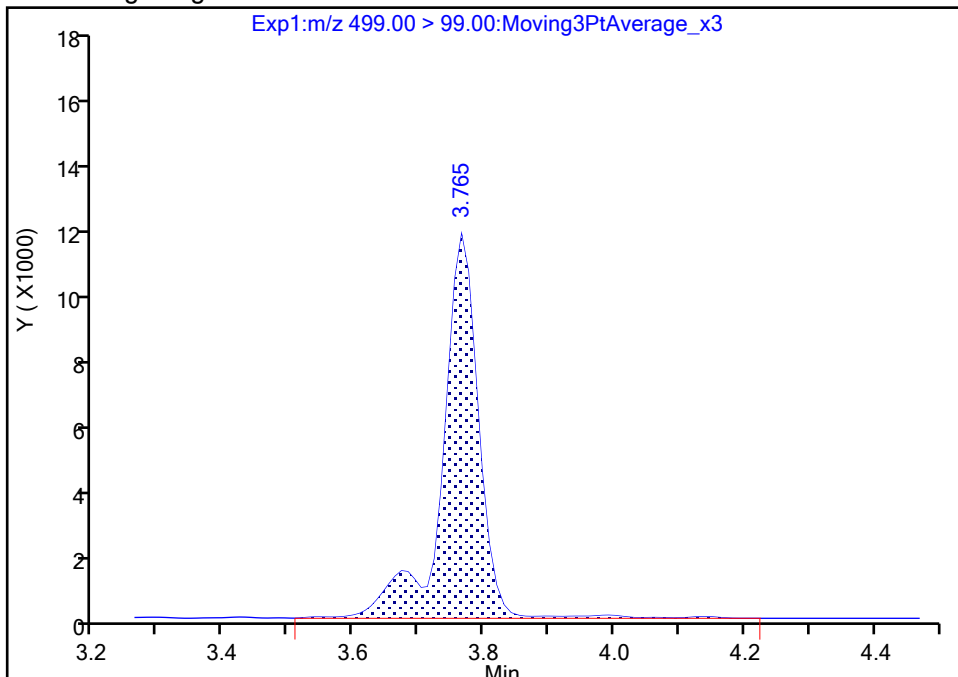
EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

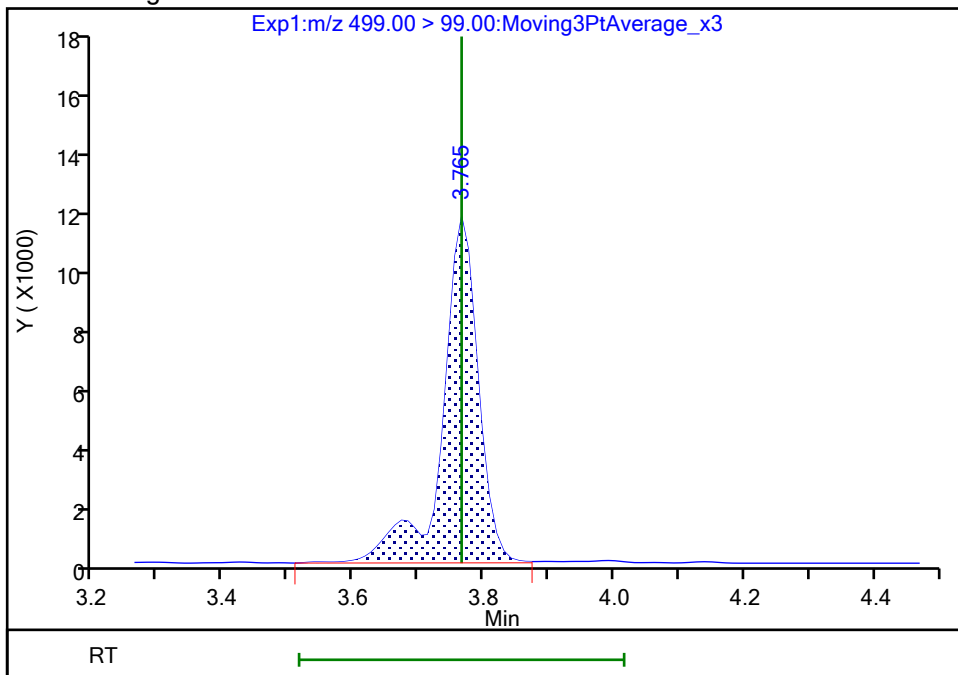
RT: 3.77
Area: 45568
Amount: 0.887893
Amount Units: ng/ml

Processing Integration Results



RT: 3.77
Area: 44599
Amount: 0.855570
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:48:37

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

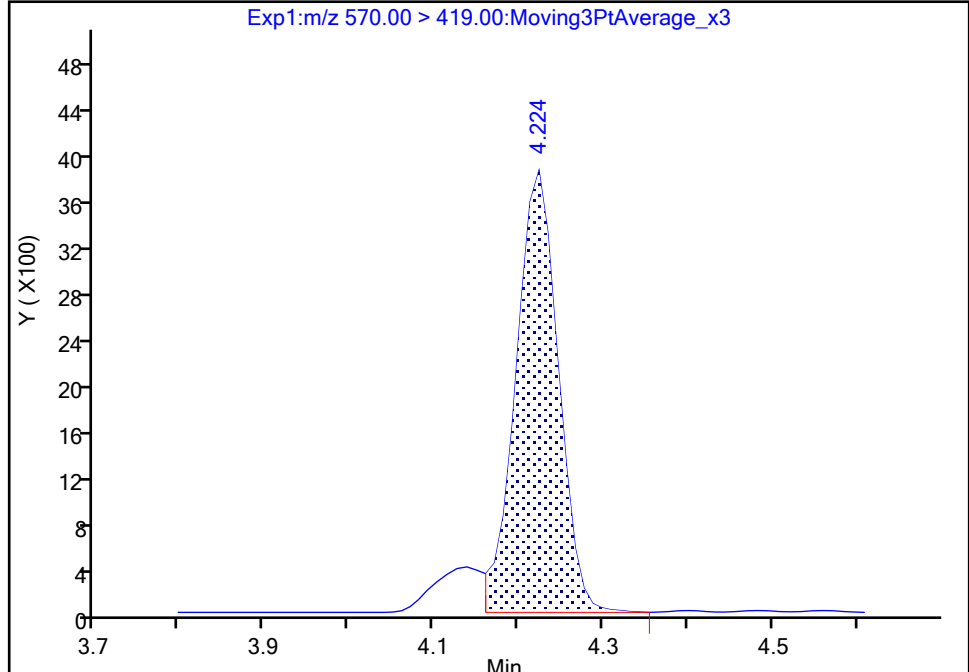
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A06.d
Injection Date: 27-Oct-2020 17:30:29 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

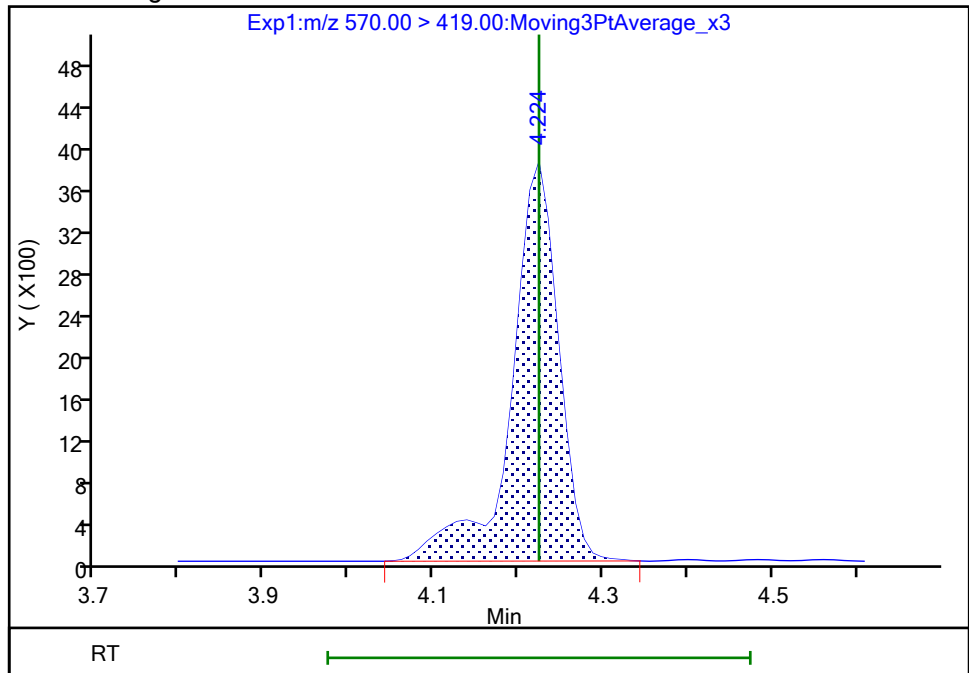
RT: 4.22
Area: 13414
Amount: 0.851015
Amount Units: ng/ml

Processing Integration Results



RT: 4.22
Area: 14949
Amount: 0.948399
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:49:01
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 686 of 906

Eurofins TestAmerica, Burlington

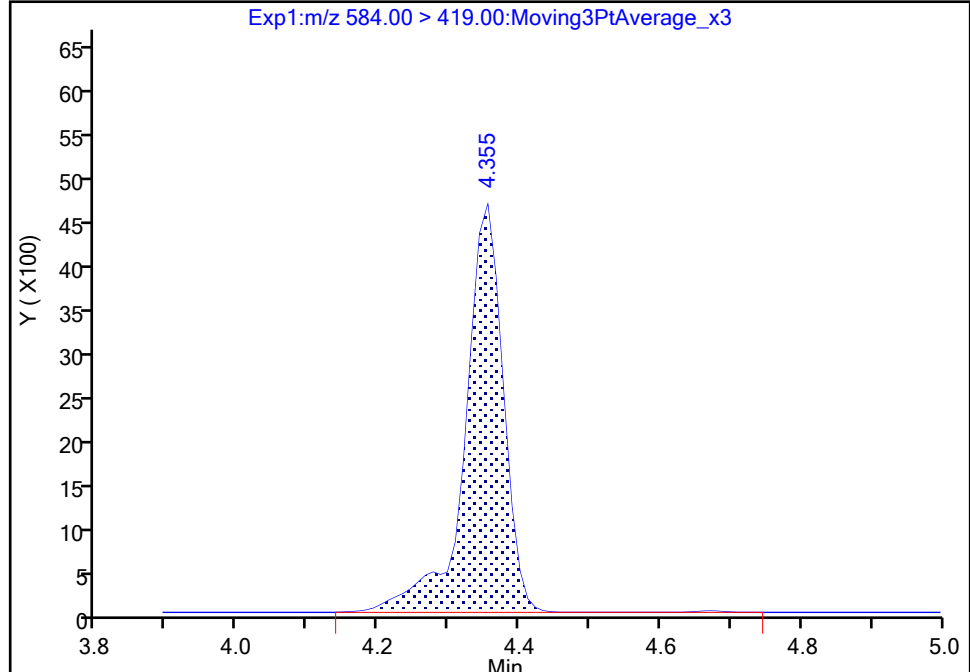
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A06.d
Injection Date: 27-Oct-2020 17:30:29 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

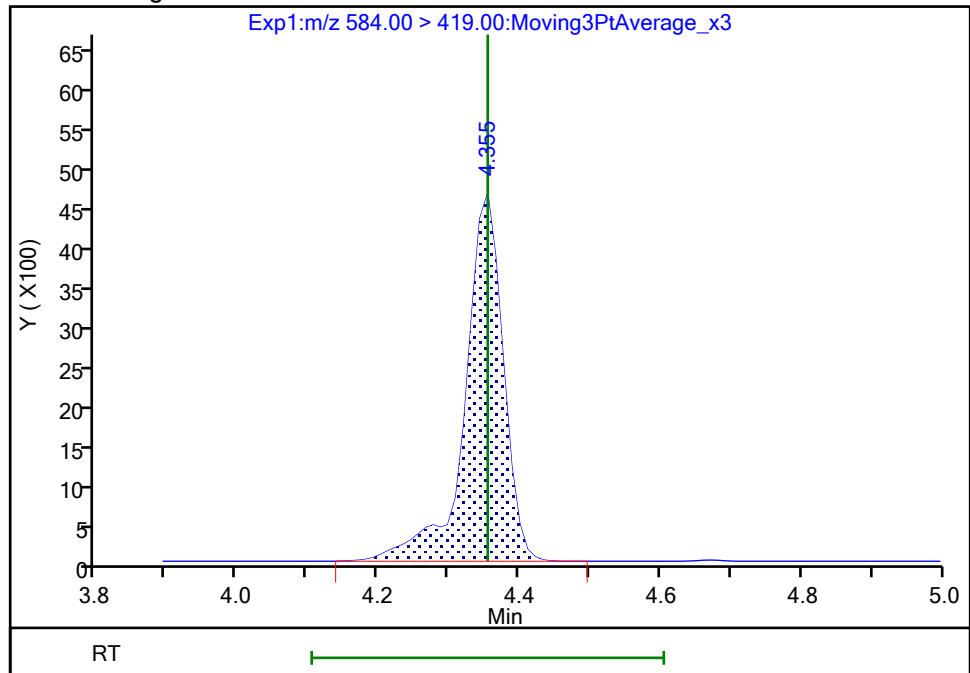
RT: 4.35
Area: 17564
Amount: 1.045381
Amount Units: ng/ml

Processing Integration Results



RT: 4.35
Area: 17528
Amount: 1.043238
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:49:09
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 687 of 906

Eurofins TestAmerica, Burlington

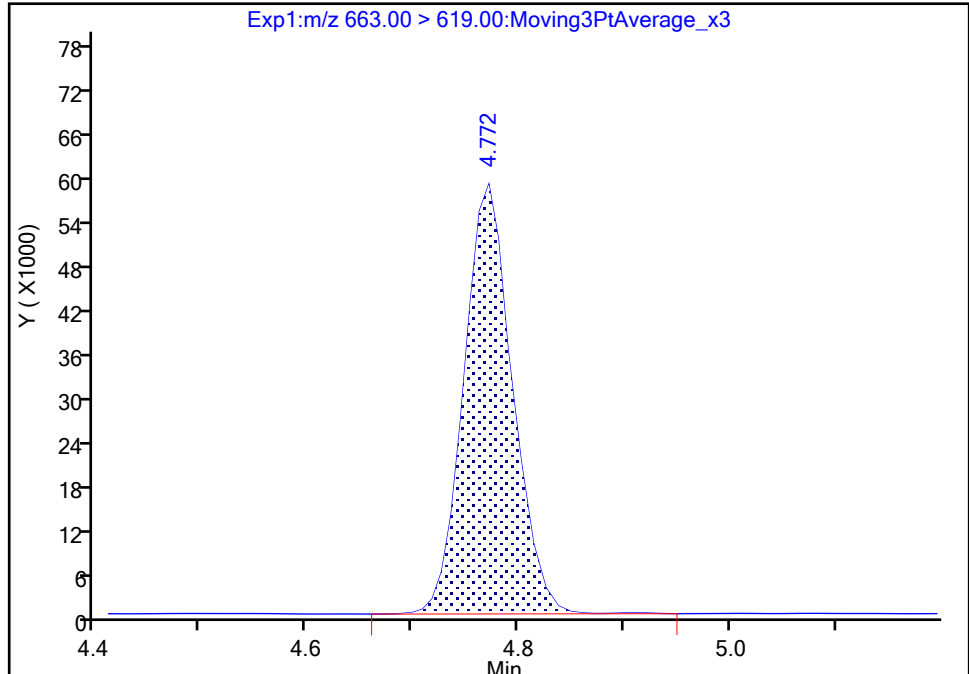
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A06.d
Injection Date: 27-Oct-2020 17:30:29 Instrument ID: LC812
Lims ID: CCVIS
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

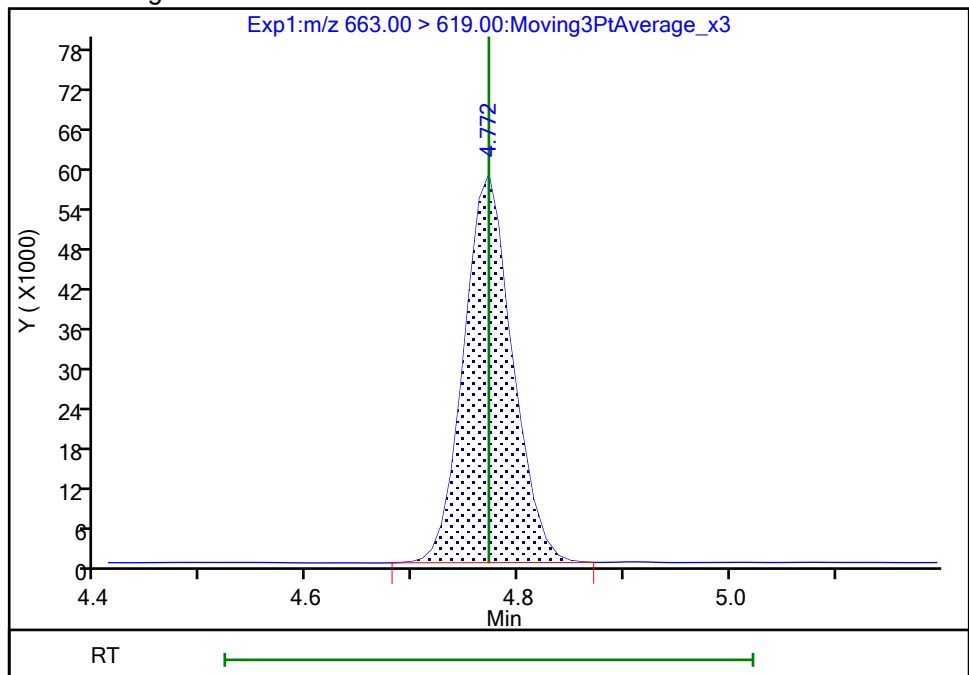
RT: 4.77
Area: 186379
Amount: 0.921973
Amount Units: ng/ml

Processing Integration Results



RT: 4.77
Area: 185640
Amount: 0.918317
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 27-Oct-2020 17:49:18
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 688 of 906

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1

SDG No.: _____

Lab Sample ID: CCV 200-160481/21 Calibration Date: 10/27/2020 19:50

Instrument ID: LC812 Calib Start Date: 09/22/2020 19:30

GC Column: C-18 ID: 4.60 (mm) Calib End Date: 09/22/2020 20:11

Lab File ID: PA201027A21.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9347	0.8644		2.31	2.50	-7.5	40.0
Perfluoropentanoic acid (PFPeA)	AveID	1.056	1.023		2.42	2.50	-3.2	40.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.996	1.038		2.30	2.21	4.2	40.0
1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	AveID	1.616	1.530		2.21	2.34	-5.3	50.0
Perfluorohexanoic acid (PFHxA)	AveID	1.007	0.9841		2.44	2.50	-2.3	40.0
Perfluoropentanesulfonic acid	AveID	1.184	1.152		2.28	2.35	-2.7	50.0
HFPO-DA	AveID	2.128	1.411		1.66	2.50	-33.7	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.002	0.9626		2.40	2.50	-3.9	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.104	1.047		2.16	2.28	-5.2	40.0
DONA	AveID	3.081	3.099		2.37	2.36	0.6	50.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.159	1.216		2.50	2.38	5.0	50.0
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	AveID	0.7981	0.8437		2.51	2.37	5.7	40.0
Perfluorooctanoic acid (PFOA)	AveID	1.032	1.001		2.42	2.50	-3.0	40.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.087	1.044		2.23	2.32	-3.9	40.0
Perfluorononanoic acid (PFNA)	AveID	1.018	0.9677		2.38	2.50	-5.0	40.0
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	AveID	0.9564	0.8997		2.19	2.33	-5.9	50.0
Perfluorononanesulfonic acid	AveID	0.8588	0.8477		2.37	2.40	-1.3	50.0
Perfluorodecanoic acid (PFDA)	AveID	0.9894	0.9147		2.31	2.50	-7.6	40.0
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	AveID	0.3958	0.4063		2.46	2.40	2.6	40.0
Perfluorooctanesulfonamide (PFOSA)	AveID	0.9348	0.9598		2.57	2.50	2.7	40.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.9437	0.8436		2.23	2.50	-10.6	40.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.7186	0.6939		2.33	2.41	-3.4	50.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.9863	0.9874		2.50	2.50	0.1	40.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.9155	0.7942		2.17	2.50	-13.2	40.0
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	AveID	0.8250	0.7874		2.25	2.36	-4.5	50.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9752	0.8989		2.30	2.50	-7.8	40.0
10:2 FTS	AveID	0.2199	0.2127		2.33	2.41	-3.3	50.0
Perfluorododecanesulfonic acid (PFDoS)	AveID	0.2306	0.2019		2.12	2.42	-12.4	50.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.8282	0.8013		2.42	2.50	-3.2	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2290	0.2338		2.55	2.50	2.1	40.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Lab Sample ID: CCV 200-160481/21 Calibration Date: 10/27/2020 19:50
 Instrument ID: LC812 Calib Start Date: 09/22/2020 19:30
 GC Column: C-18 ID: 4.60 (mm) Calib End Date: 09/22/2020 20:11
 Lab File ID: PA201027A21.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.8555		2.44	2.50	-2.5	40.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	0.7473	0.8966		3.00	2.50	20.0	50.0
13C4 PFBA	Ave	1.433	1.566		1.37	1.25	9.3	50.0
13C5 PFPeA	Ave	1.027	1.075		1.31	1.25	4.7	50.0
13C3 PFBS	Ave	1.251	1.206		1.12	1.16	-3.6	50.0
M2-4:2 FTS	Ave	0.0939	0.0944		1.17	1.17	0.5	50.0
13C2 PFHxA	Ave	1.058	1.099		1.30	1.25	4.0	50.0
13C3 HFPO-DA	Ave	0.0985	0.1569		1.99	1.25	59.2*	50.0
18O2 PFHxS	Ave	0.8974	0.9312		1.23	1.18	3.8	50.0
13C4 PFHpA	Ave	0.9620	0.9755		1.27	1.25	1.4	50.0
M2-6:2 FTS	Ave	0.1199	0.1123		1.11	1.19	-6.4	50.0
13C4 PFOA	Ave	0.9845	0.9803		1.24	1.25	-0.4	50.0
13C4 PFOS	Ave	0.7341	0.7103		1.16	1.20	-3.2	50.0
13C5 PFNA	Ave	0.8296	0.7658		1.15	1.25	-7.7	50.0
13C2 PFDA	Ave	0.7956	0.7093		1.11	1.25	-10.8	50.0
M2-8:2 FTS	Ave	0.1413	0.1473		1.25	1.20	4.3	50.0
13C8 FOSA	Ave	1.282	1.205		1.17	1.25	-6.0	50.0
d3-NMeFOSAA	Ave	0.0453	0.0424		1.17	1.25	-6.5	50.0
13C2 PFUnA	Ave	0.6006	0.5378		1.12	1.25	-10.5	50.0
d5-NEtFOSAA	Ave	0.0487	0.0423		1.08	1.25	-13.2	50.0
13C2 PFDoA	Ave	0.6348	0.5123		1.01	1.25	-19.3	50.0
13C2 PFTeDA	Ave	0.4522	0.3909		1.08	1.25	-13.5	50.0
13C2 PFHxDA	Ave	0.5124	0.4023		0.981	1.25	-21.5	50.0

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A21.d
 Lims ID: CCV L5
 Client ID:
 Sample Type: CCV
 Inject. Date: 27-Oct-2020 19:50:36 ALS Bottle#: 18 Worklist Smp#: 21
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: CCV L5
 Misc. Info.: 200-0043412-021 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Sublist: chrom-PFC_LC812*sub3
 Method: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 28-Oct-2020 13:19:45 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1652

First Level Reviewer: khanphomeea

Date: 28-Oct-2020 09:27:28

Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.981	1.981	0.0	0.574	882095	1.37		109	15684	
2 Perfluorobutanoic acid										
212.90 > 169.00	1.990	1.990	0.0	1.005	1524959	2.31		92.5	548	
D 3 13C5 PFPeA										
267.90 > 223.00	2.326	2.326	0.0	0.674	605687	1.31		105	3427	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.326	2.326	0.0	1.000	1238847	2.42		96.8	80.6	M
D 47 13C3 PFBS										
301.90 > 80.00	2.339	2.339	0.0	0.678	631878	1.12		96.4	233930	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.339	2.353	-0.014	1.000	1247492	2.30	Target=2.07	104	2726	
298.90 > 99.00	2.339	2.353	-0.014	1.000	634440		1.97(1.04-3.11)		1107	
D 60 M2-4:2 FTS										M
329.00 > 81.00	2.665	2.665	0.0	0.773	49657	1.17		100	102	M
61 1H,1H,2H,2H-perfluorohexanesulfo										
327.00 > 307.00	2.665	2.665	0.0	1.000	151959	2.21		94.7	2412	
D 7 13C2 PFHxA										
315.00 > 270.00	2.703	2.703	0.0	0.784	619338	1.30		104	4633	
6 Perfluorohexanoic acid										M
313.00 > 269.00	2.703	2.703	0.0	1.000	1219030	2.44	Target=12.44	97.7	592	M
313.00 > 119.00	2.703	2.703	0.0	1.000	101285		12.04(6.22-18.66)		230	M
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.703	2.703	0.0	0.880	1133846	2.28	Target=3.64	97.3	2530	
349.00 > 99.00	2.703	2.703	0.0	0.880	337458		3.36(1.82-5.46)		972	
D 64 13C3 HFPO-DA										M
332.10 > 287.00	2.810	2.810	0.0	0.815	88388	1.99		159	1995	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
67 Perfluoro(2-propoxypropanoic) ac										M
329.10 > 285.00	2.810	2.818	-0.008	1.000	249347	1.66		66.3	101	M
D 11 18O2 PFHxS										
403.00 > 84.00	3.073	3.084	-0.011	0.891	496233	1.23		104	1621	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.084	3.084	0.0	1.004	999802	2.16	Target=4.60	94.8	2107	M
399.00 > 99.00	3.073	3.084	-0.011	1.000	215563		4.64(2.30-6.91)		405	M
D 9 13C4 PFHpA										
367.00 > 322.00	3.084	3.084	0.0	0.894	549554	1.27		101	2900	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.084	3.084	0.0	1.000	1058049	2.40	Target=3.34	96.1	514	
363.00 > 169.00	3.084	3.084	0.0	1.000	327875		3.23(1.67-5.01)		1366	
77 DONA										
377.00 > 251.00	3.123	3.124	-0.001	0.830	2335972	2.37	Target=2.44	101	4366	
377.00 > 85.00	3.123	3.124	-0.001	0.830	1016475		2.30(1.22-3.67)		2349	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.432	3.441	-0.009	0.912	926396	2.50	Target=7.08	105	4521	
449.00 > 99.00	3.432	3.441	-0.009	0.912	131674		7.04(3.54-10.63)		879	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.432	3.441	-0.009	0.995	60097	1.11		93.6	466	
13 1H,1H,2H,2H-perfluorooctanesulfo										
427.00 > 407.00	3.441	3.441	0.0	1.003	101193	2.51		106	2396	
D 14 13C4 PFOA										
417.00 > 372.00	3.450	3.450	0.0	1.000	552213	1.24		99.6	4078	
* 62 13C2 PFOA										
415.00 > 370.00	3.450	3.450	0.0		563333	1.25			4512	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.450	3.458	-0.008	1.000	1105519	2.42	Target=2.29	97.0	689	
413.00 > 169.00	3.450	3.458	-0.008	1.000	510233		2.17(1.14-3.43)		1977	M
D 18 13C4 PFOS										
503.00 > 80.00	3.765	3.765	0.0	1.091	382535	1.16		96.8	1586	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.765	3.765	0.0	1.000	775393	2.23	Target=7.10	96.1	705	M
499.00 > 99.00	3.765	3.765	0.0	1.000	111841		6.93(3.55-10.64)		857	M
D 19 13C5 PFNA										
468.00 > 423.00	3.776	3.786	-0.010	1.094	431375	1.15		92.3	4162	
20 Perfluorononanoic acid										
463.00 > 419.00	3.786	3.786	0.0	1.003	834895	2.38	Target=5.83	95.0	362	
463.00 > 169.00	3.786	3.786	0.0	1.003	146149		5.71(2.91-8.74)		2128	
69 9-Chlorohexadecafluoro-3-oxanona										
531.00 > 351.00	3.922	3.922	0.0	1.042	671022	2.19		94.1	3838	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.051	4.052	-0.001	1.076	651272	2.37	Target=3.38	98.7	3509	
549.00 > 99.00	4.051	4.052	-0.001	1.076	175865		3.70(1.69-5.08)		1222	
D 23 13C2 PFDA										
515.00 > 470.00	4.072	4.082	-0.010	1.180	399558	1.11		89.2	5688	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
24 Perfluorodecanoic acid										
513.00 > 469.00	4.072	4.082	-0.010	1.000	730932	2.31	Target=6.81 6.26(3.41-10.22)	92.4	1600	
513.00 > 169.00	4.072	4.082	-0.010	1.000	116700				1148	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.082	4.092	-0.010	1.183	79517	1.25		104	287	
25 1H,1H,2H,2H-perfluorodecanesulfo										
527.00 > 507.00	4.082	4.092	-0.010	1.000	64613	2.46		103	1611	
D 21 13C8 FOSA										
506.00 > 78.00	4.139	4.139	0.0	1.200	678611	1.17		94.0	3706	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.139	4.139	0.0	1.000	1302601	2.57		103	2619	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.214	4.214	0.0	1.221	23868	1.17		93.5	63.8	
28 N-methylperfluorooctanesulfonami										
570.00 > 419.00	4.214	4.224	-0.010	1.000	40272	2.23		89.4	553	M M
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.309	4.309	0.0	1.144	535328	2.33	Target=3.31 3.12(1.66-4.97)	96.6	2346	
599.00 > 99.00	4.309	4.309	0.0	1.144	171588				1400	
D 30 13C2 PFUnA										
565.00 > 520.00	4.332	4.343	-0.011	1.256	302961	1.12		89.5	3485	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.332	4.343	-0.011	1.000	598284	2.50	Target=6.57 6.27(3.28-9.85)	100	1085	
563.00 > 169.00	4.332	4.343	-0.011	1.000	95469				1277	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.343	4.343	0.0	1.259	23807	1.08		86.8	765	
33 N-ethylperfluorooctanesulfonamid										
584.00 > 419.00	4.355	4.355	0.0	1.003	37816	2.17		86.8	535	M M
66 11-Chloroeicosafuoro-3-oxaundec										
631.00 > 451.00	4.422	4.422	0.0	1.174	593618	2.25		95.5	4411	
D 36 13C2 PFDaA										
615.00 > 570.00	4.561	4.561	0.0	1.322	288576	1.01		80.7	2986	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.561	4.561	0.0	1.000	518826	2.30	Target=5.16 4.32(2.58-7.75)	92.2	894	
613.00 > 169.00	4.561	4.561	0.0	1.000	120200				1678	
74 1H,1H,2H,2H-perfluorododecanesul										
627.00 > 607.00	4.585	4.585	0.0	1.123	34033	2.33		96.7	1361	
75 Perfluorododecanesulfonic acid (										
699.00 > 80.00	4.736	4.736	0.0	1.258	156437	2.12	Target=0.45 0.44(0.22-0.67)	87.6	964	
699.00 > 99.00	4.736	4.736	0.0	1.258	351981				2724	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.772	4.772	0.0	1.046	462467	2.42	Target=3.30 3.11(1.65-4.95)	96.8	646	
663.00 > 169.00	4.772	4.772	0.0	1.046	148864				2604	
D 43 13C2 PFTeDA										
715.00 > 670.00	4.969	4.969	0.0	1.440	220228	1.08		86.5	3769	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.969	4.969	0.0	1.000	102985	2.55	Target=1.06 1.07(0.53-1.59)	102	2163	
713.00 > 219.00	4.959	4.969	-0.010	0.998	95819				2196	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 44 13C2 PFHxDA										
815.00 > 770.00	5.329	5.329	0.0	1.545	226649	0.9814		78.5	3391	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.329	5.329	0.0	1.000	387795	2.44	Target=3.06	97.5	449	
813.00 > 169.00	5.329	5.329	0.0	1.000	139594		2.78(1.53-4.58)		4289	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.685	5.694	-0.009	1.067	406429	3.00	Target=2.82	120	944	
913.00 > 169.00	5.676	5.694	-0.018	1.065	150044		2.71(1.41-4.24)		1713	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

PFAS32NCIC5_00011

Amount Added: 100.00

Units: uL

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A21.d

Injection Date: 27-Oct-2020 19:50:36

Instrument ID: LC812

Lims ID: CCV L5

Client ID:

Operator ID: lc812tech

ALS Bottle#: 18

Worklist Smp#: 21

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

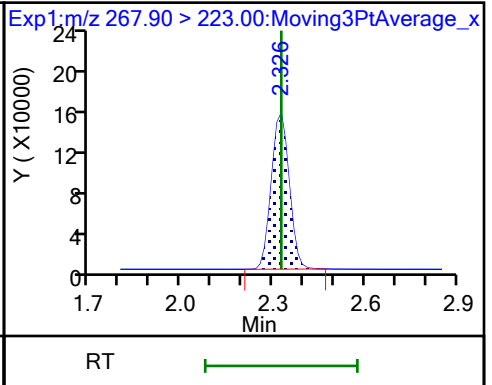
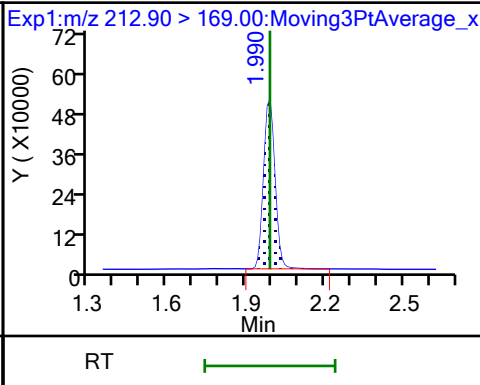
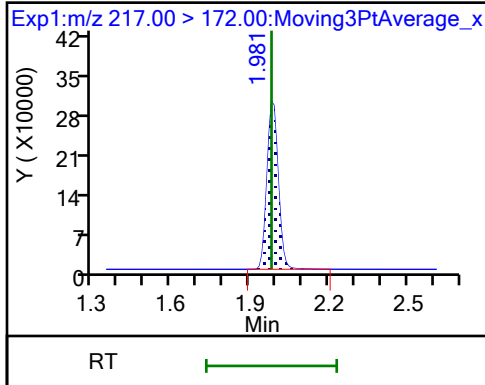
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid

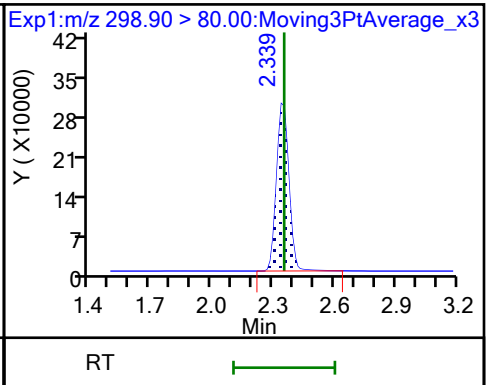
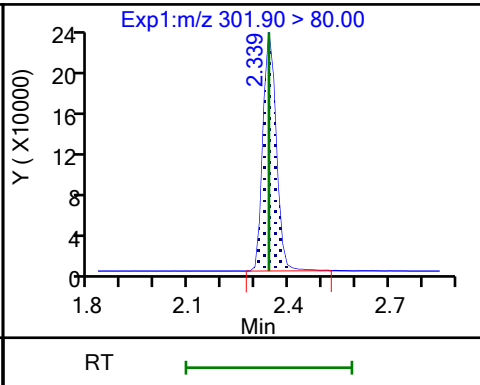
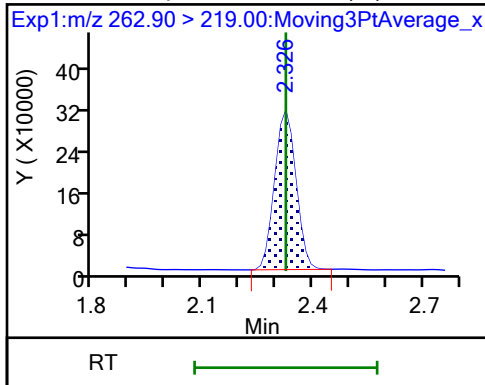
D 3 13C5 PFPeA



4 Perfluoropentanoic acid (M)

D 47 13C3 PFBS

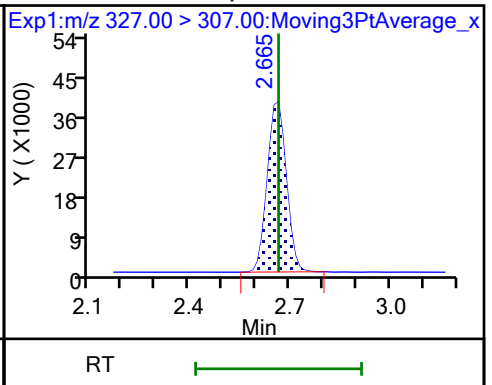
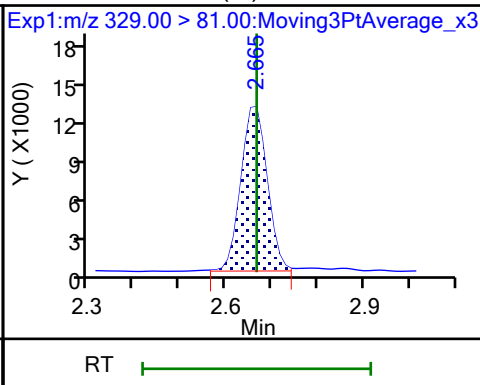
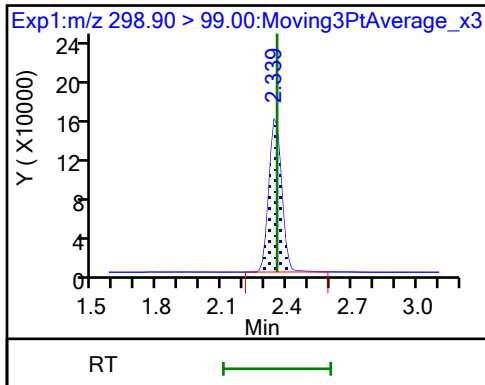
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

D 60 M2-4:2 FTS (M)

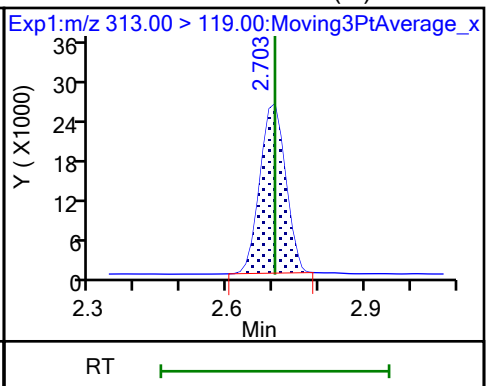
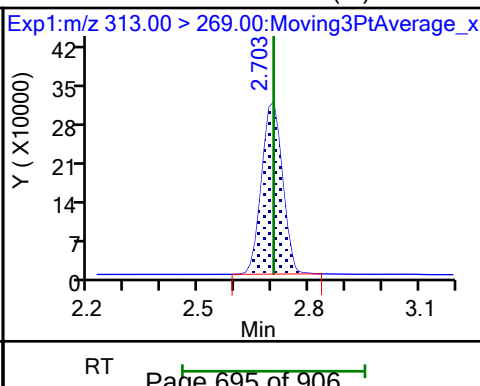
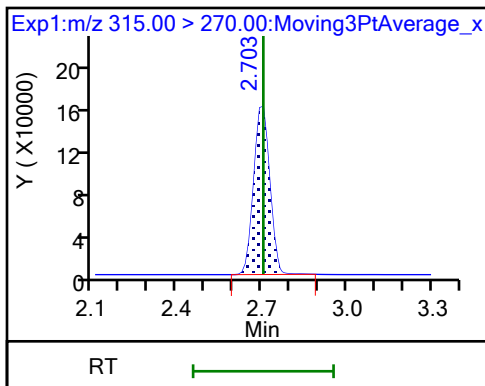
61 1H,1H,2H,2H-perfluorohexanesulfo

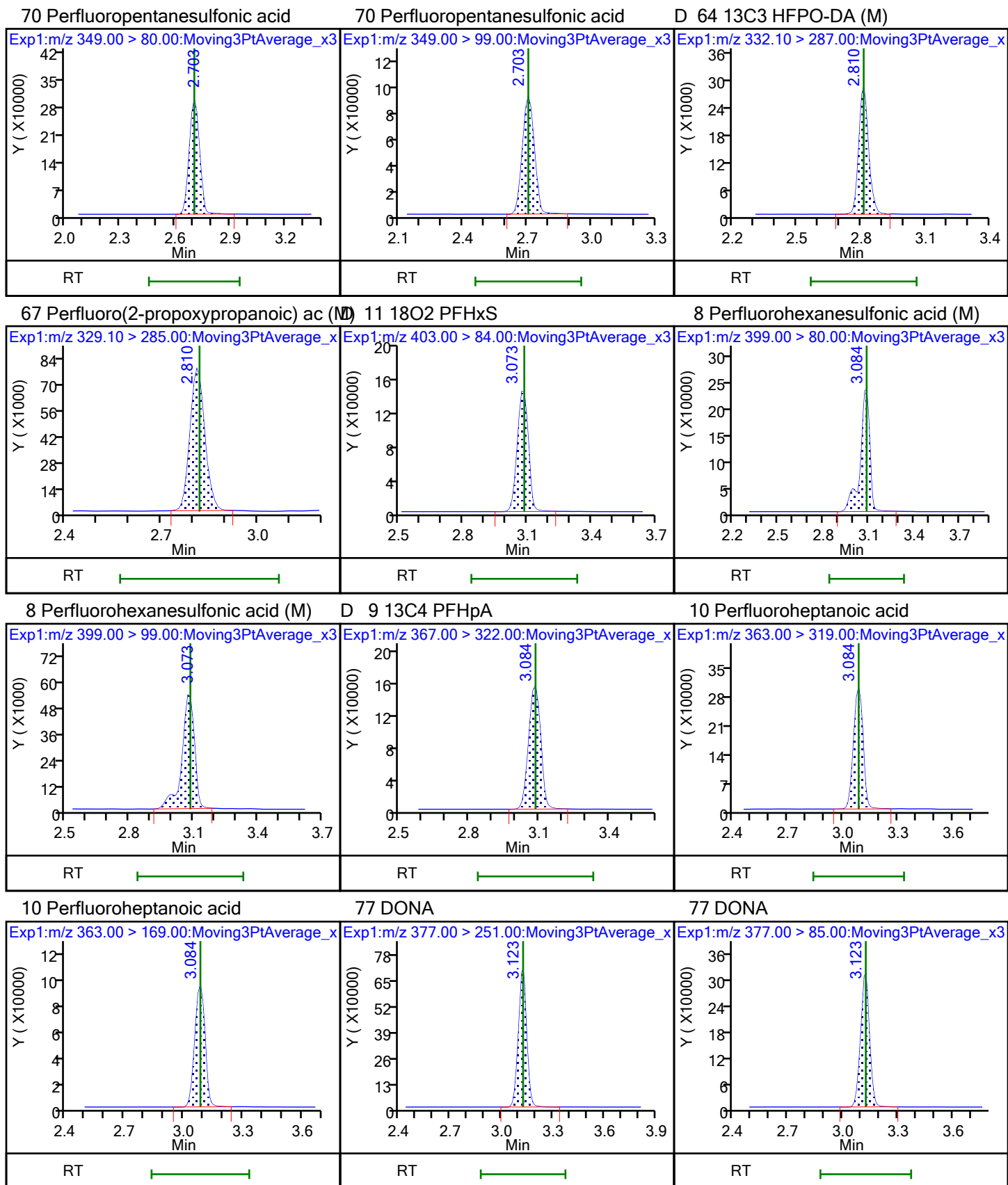


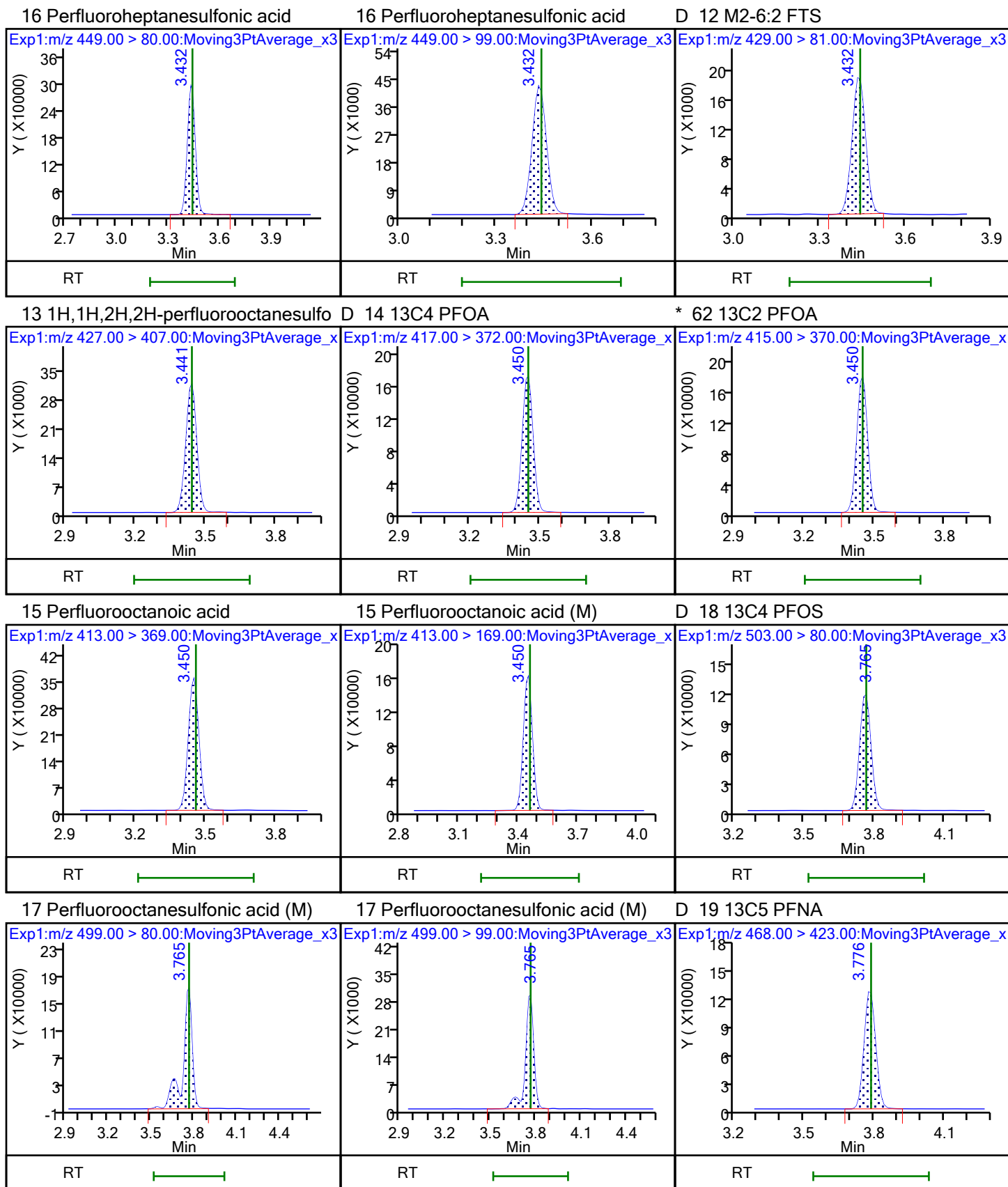
D 7 13C2 PFHxA

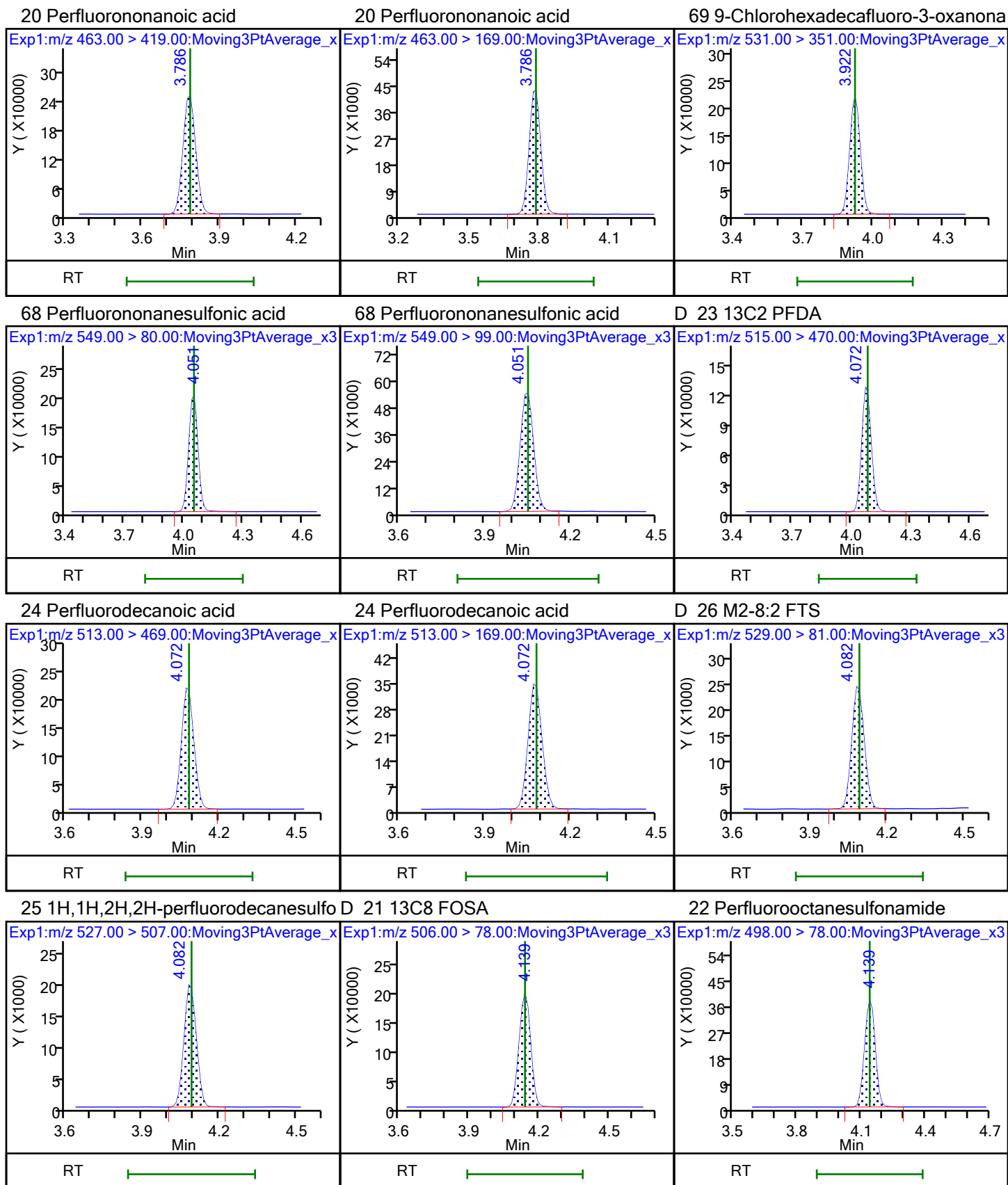
6 Perfluorohexanoic acid (M)

6 Perfluorohexanoic acid (M)



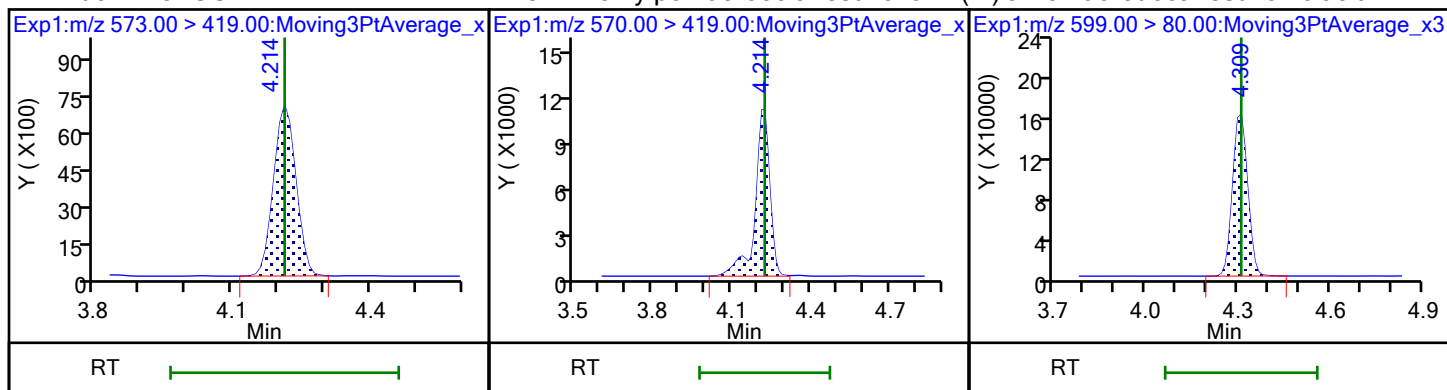






D 27 d3-NMeFOSAA

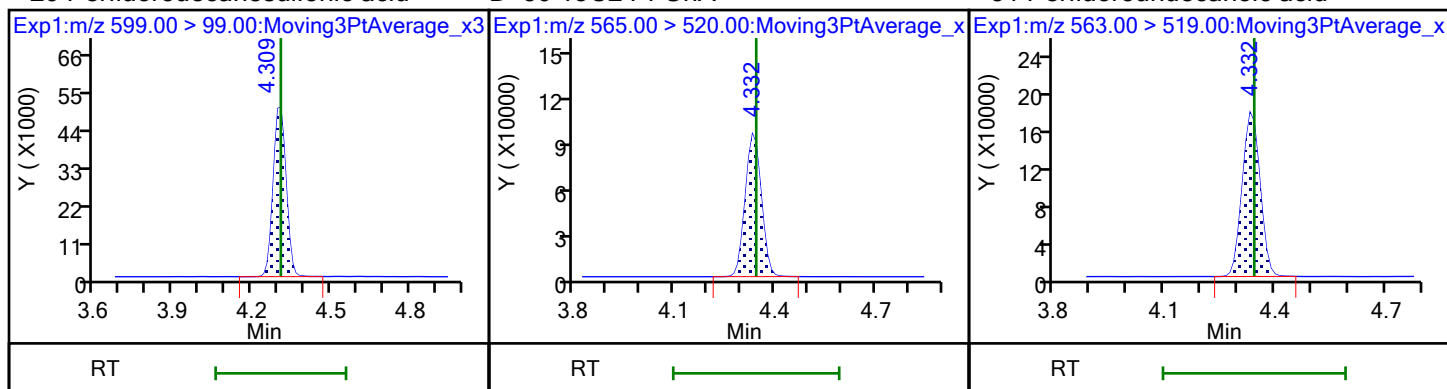
28 N-methylperfluorooctanesulfonami (M29 Perfluorodecanesulfonic acid



29 Perfluorodecanesulfonic acid

D 30 13C2 PFUnA

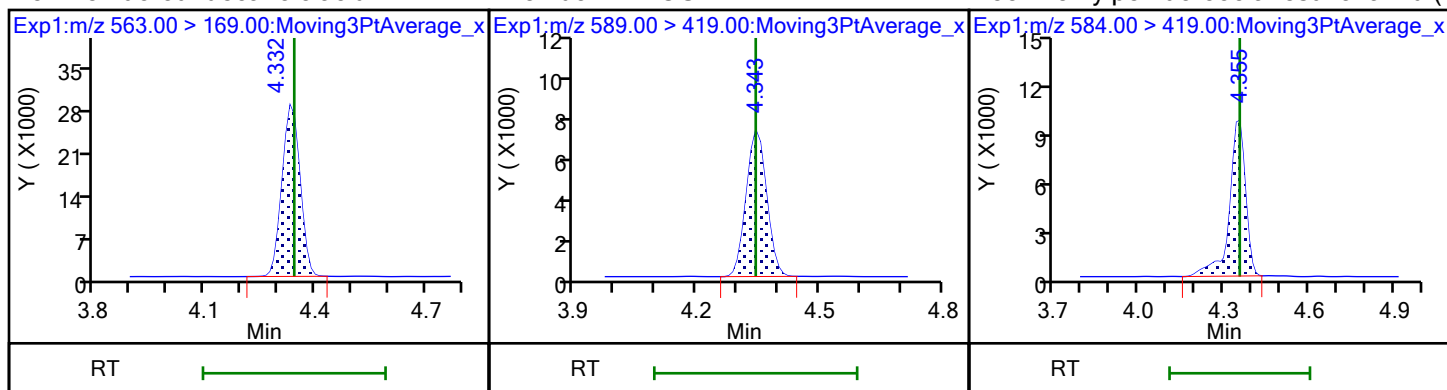
31 Perfluoroundecanoic acid



31 Perfluoroundecanoic acid

D 32 d5-NEtFOSAA

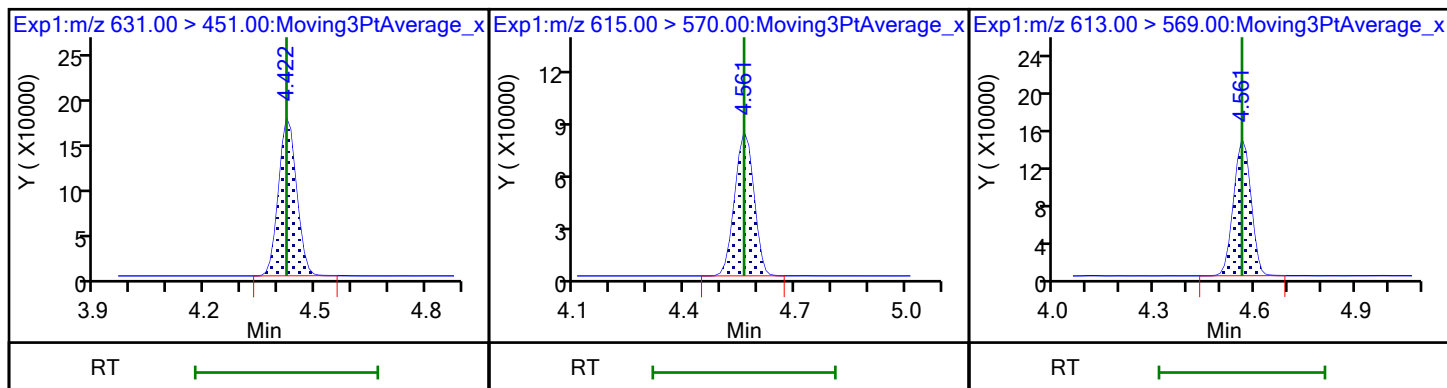
33 N-ethylperfluorooctanesulfonamid (M

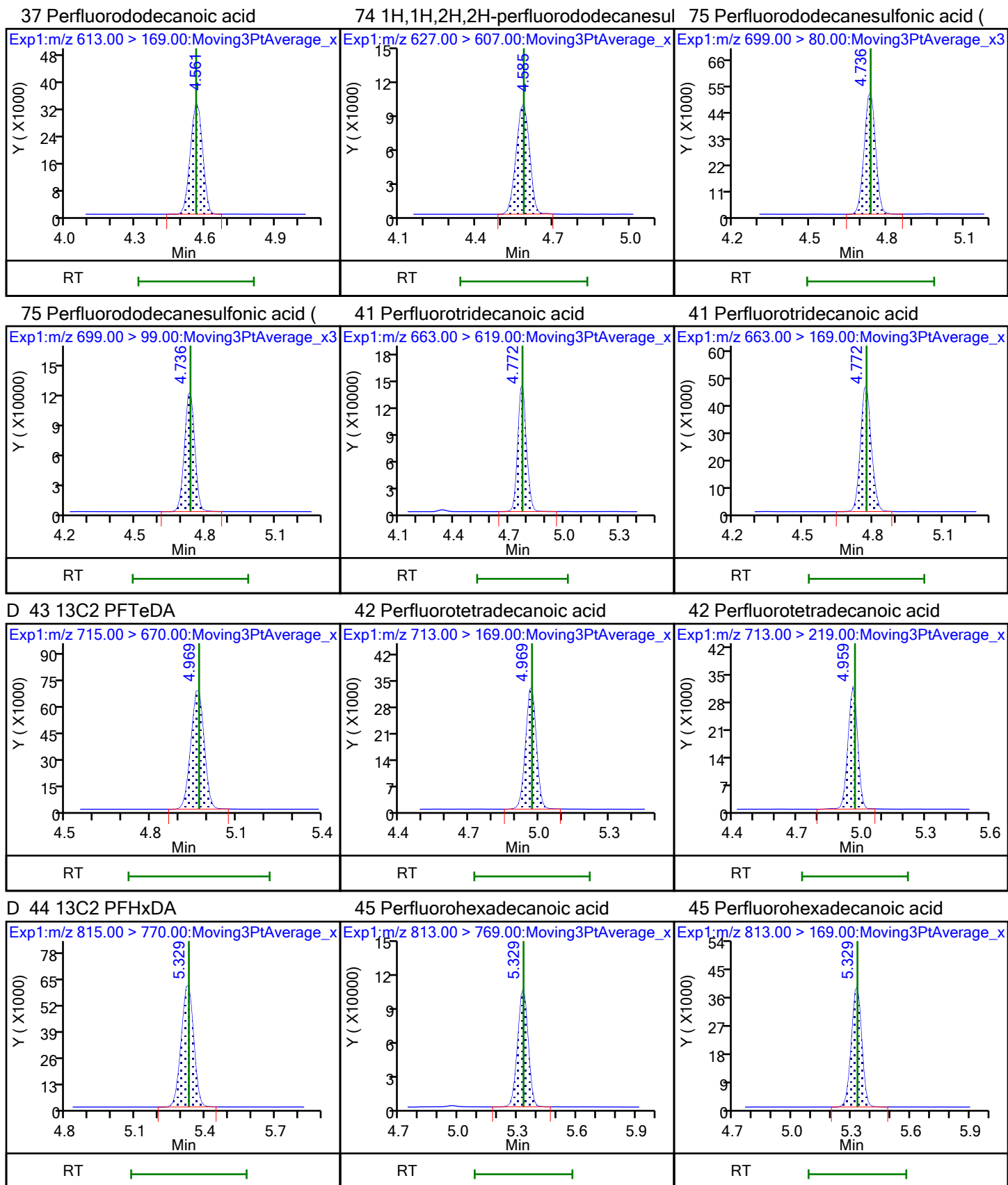


66 11-Chloroeicosafluoro-3-oxaundec

D 36 13C2 PFDaA

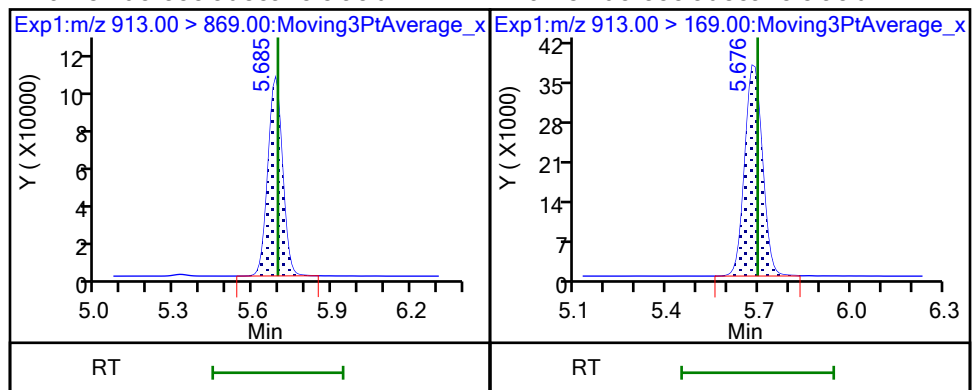
37 Perfluorododecanoic acid





46 Perfluorooctadecanoic acid

46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

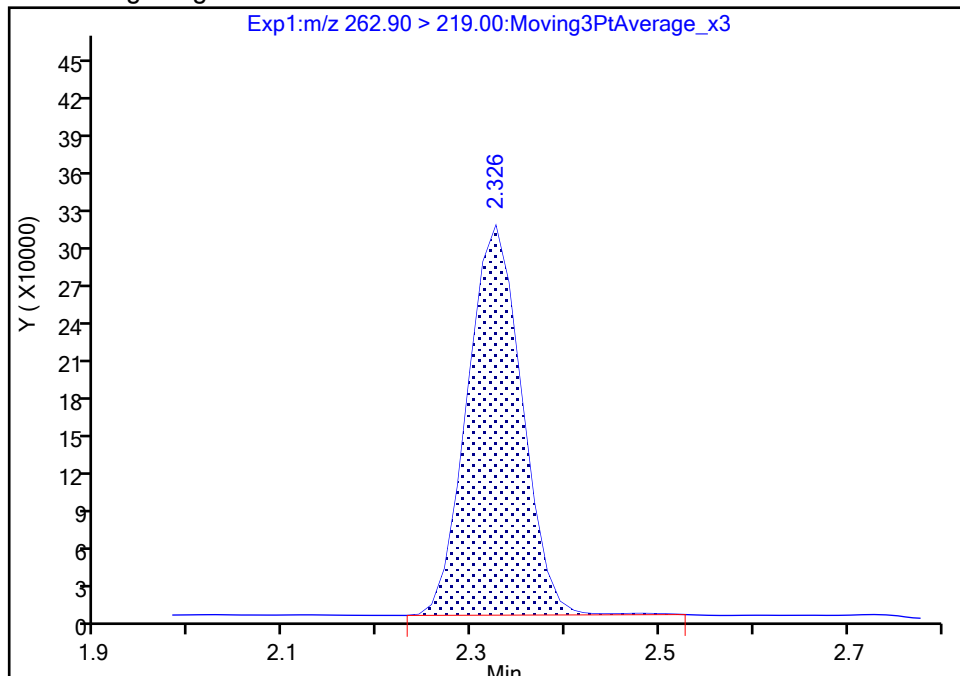
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Injection Date: 27-Oct-2020 19:50:36 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 18 Worklist Smp#: 21
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

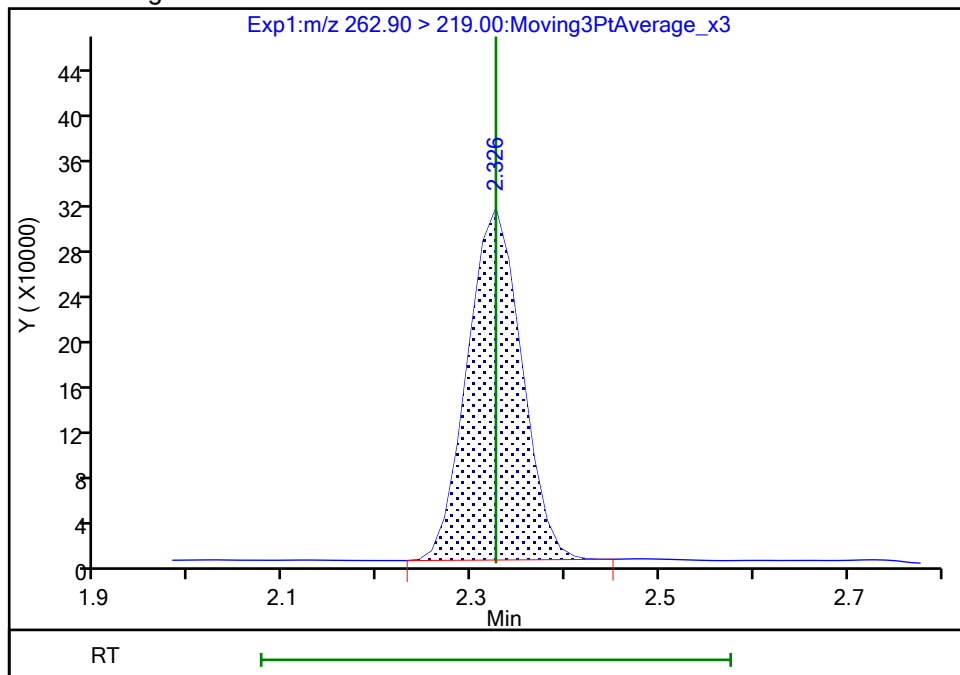
RT: 2.33
Area: 1246355
Amount: 2.435601
Amount Units: ng/ml

Processing Integration Results



RT: 2.33
Area: 1238847
Amount: 2.420929
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:25:04

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

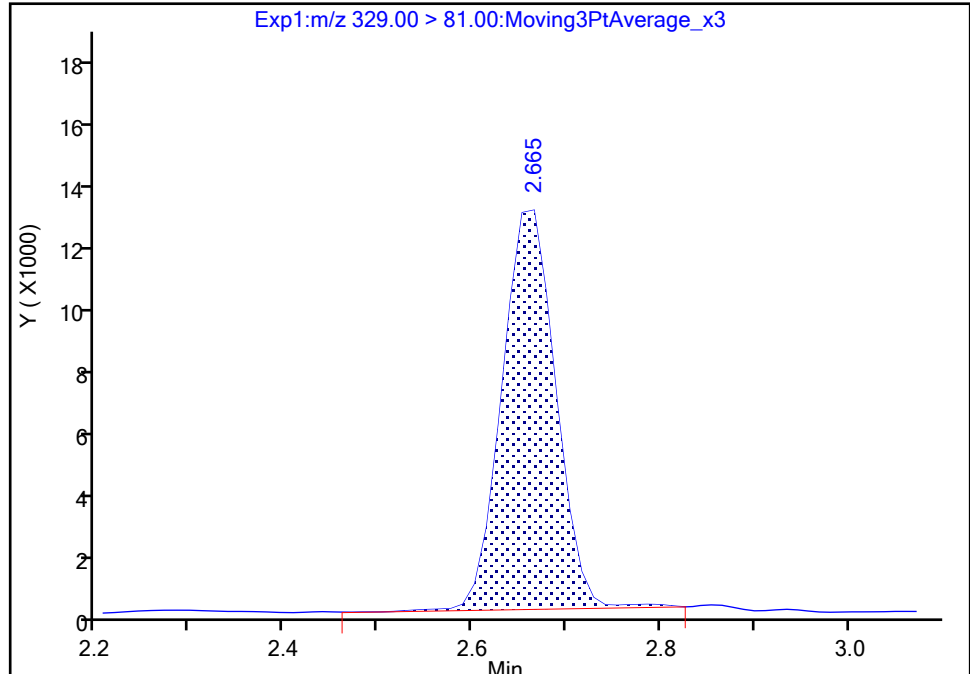
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Injection Date: 27-Oct-2020 19:50:36 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 18 Worklist Smp#: 21
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

D 60 M2-4:2 FTS, CAS: STL02395

Signal: 1

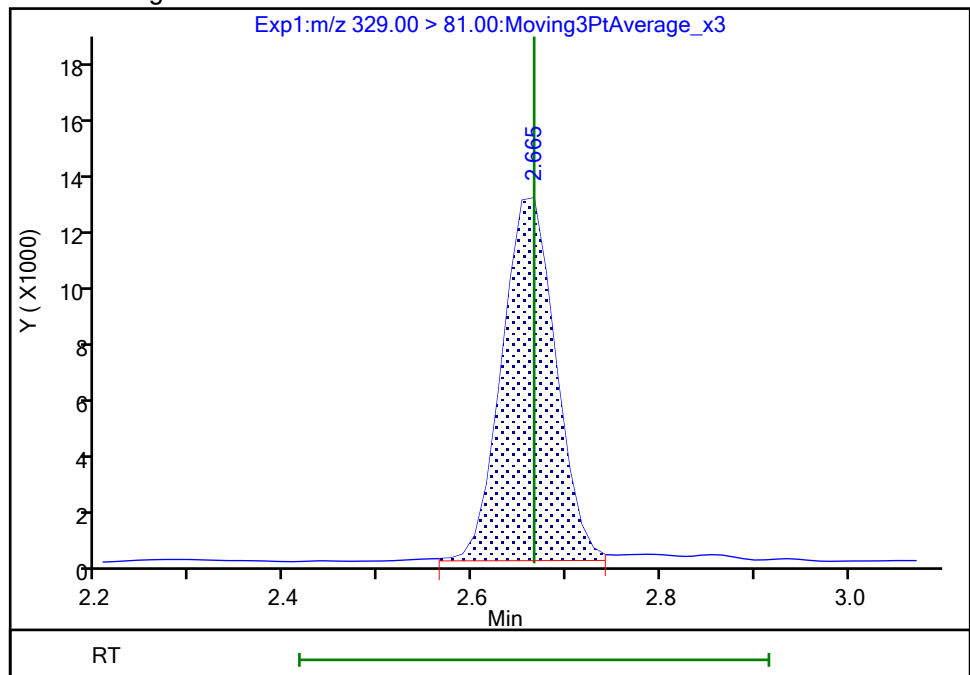
RT: 2.67
Area: 49525
Amount: 1.169746
Amount Units: ng/ml

Processing Integration Results



RT: 2.67
Area: 49657
Amount: 1.172864
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 09:11:33

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

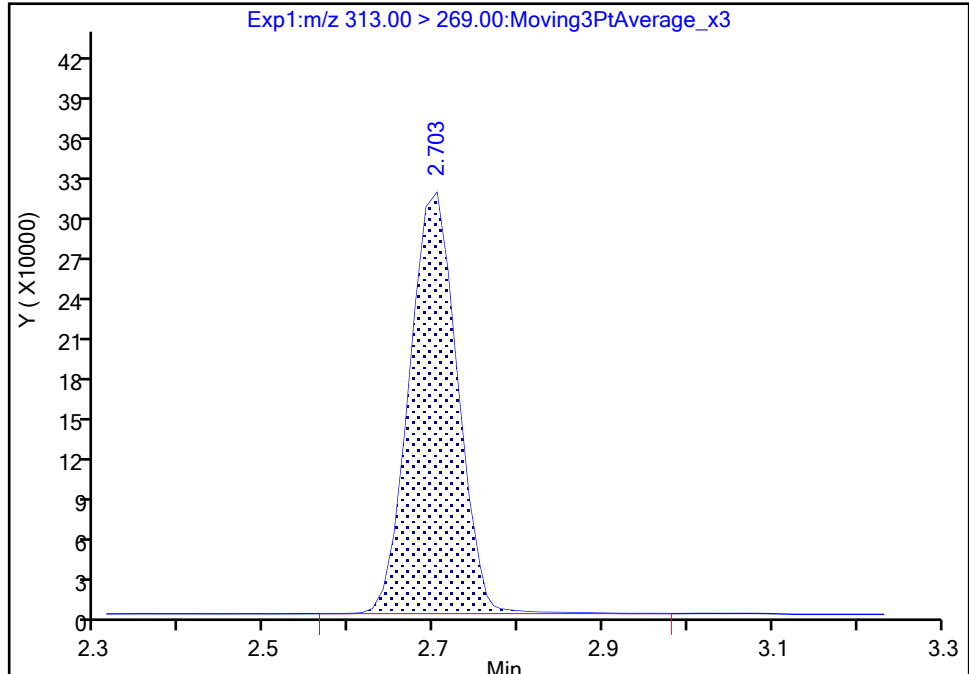
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Injection Date: 27-Oct-2020 19:50:36 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 18 Worklist Smp#: 21
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

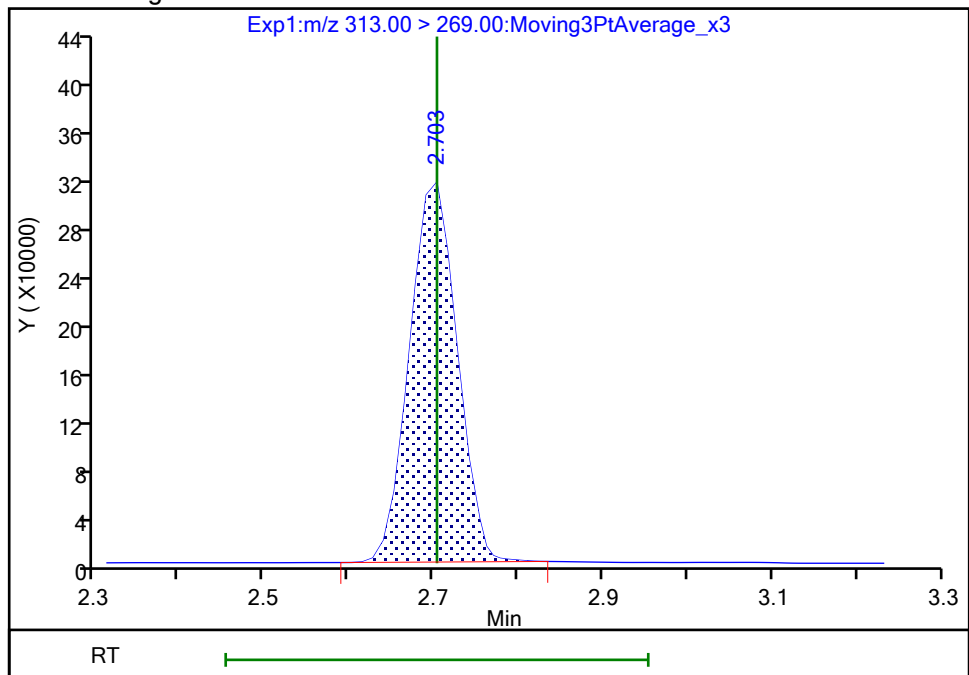
RT: 2.70
Area: 1228549
Amount: 2.462452
Amount Units: ng/ml

Processing Integration Results



RT: 2.70
Area: 1219030
Amount: 2.443372
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:25:16

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

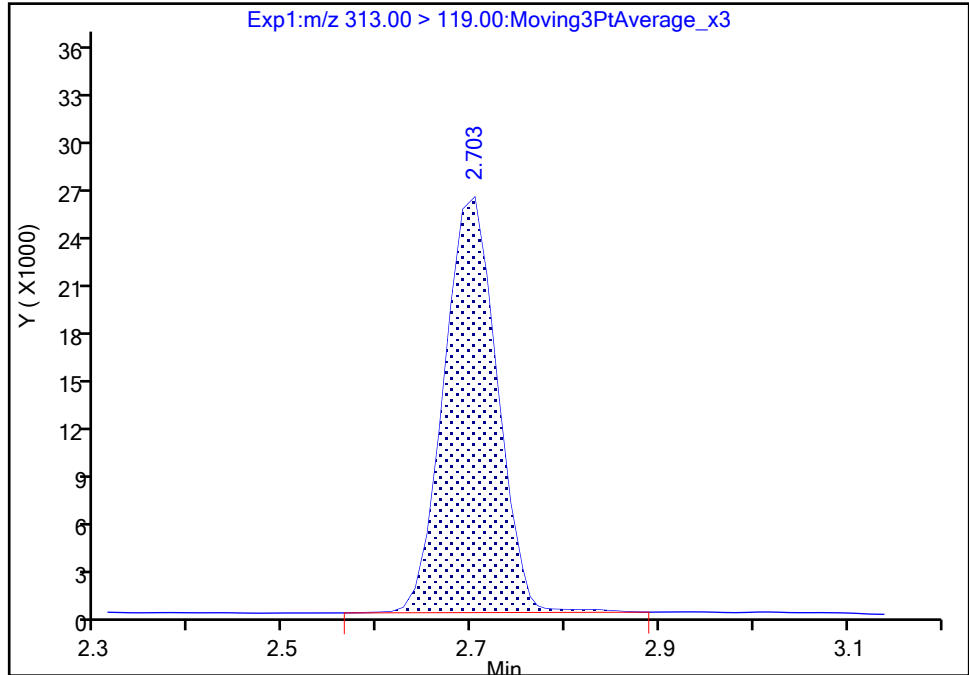
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A21.d
Injection Date: 27-Oct-2020 19:50:36 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 18 Worklist Smp#: 21
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

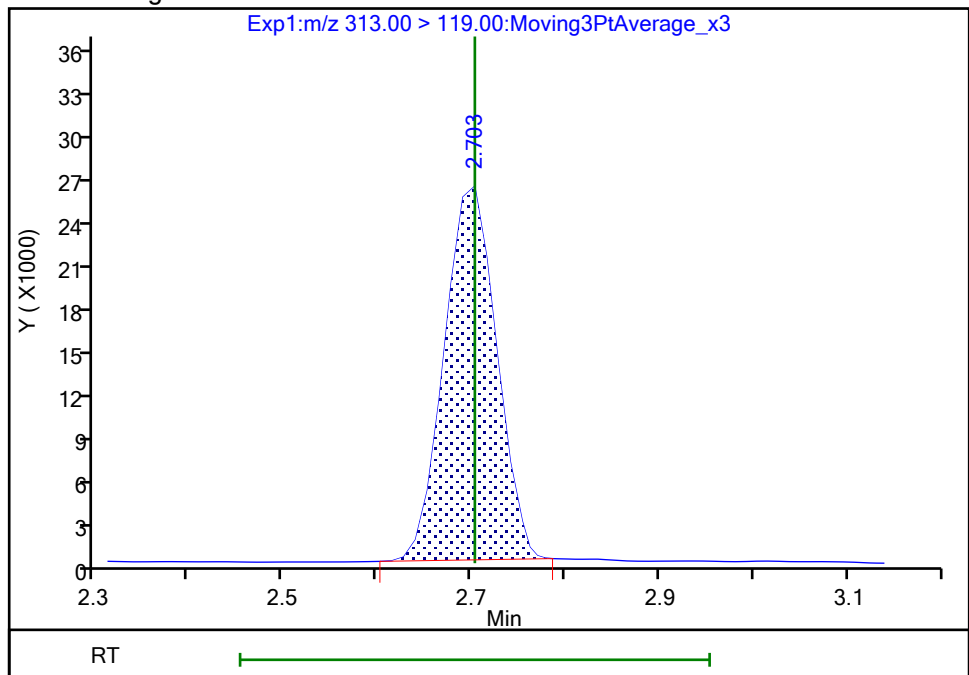
RT: 2.70
Area: 103269
Amount: 2.462452
Amount Units: ng/ml

Processing Integration Results



RT: 2.70
Area: 101285
Amount: 2.443372
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:25:25

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 705 of 906

Eurofins TestAmerica, Burlington

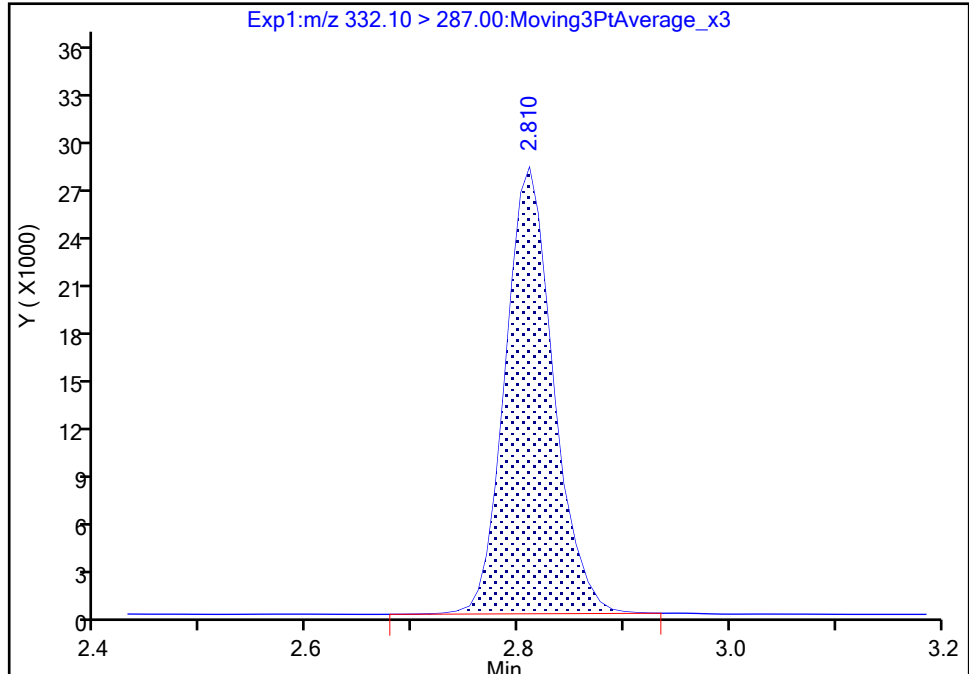
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A21.d
Injection Date: 27-Oct-2020 19:50:36 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 18 Worklist Smp#: 21
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

D 64 13C3 HFPO-DA, CAS: STL02255

Signal: 1

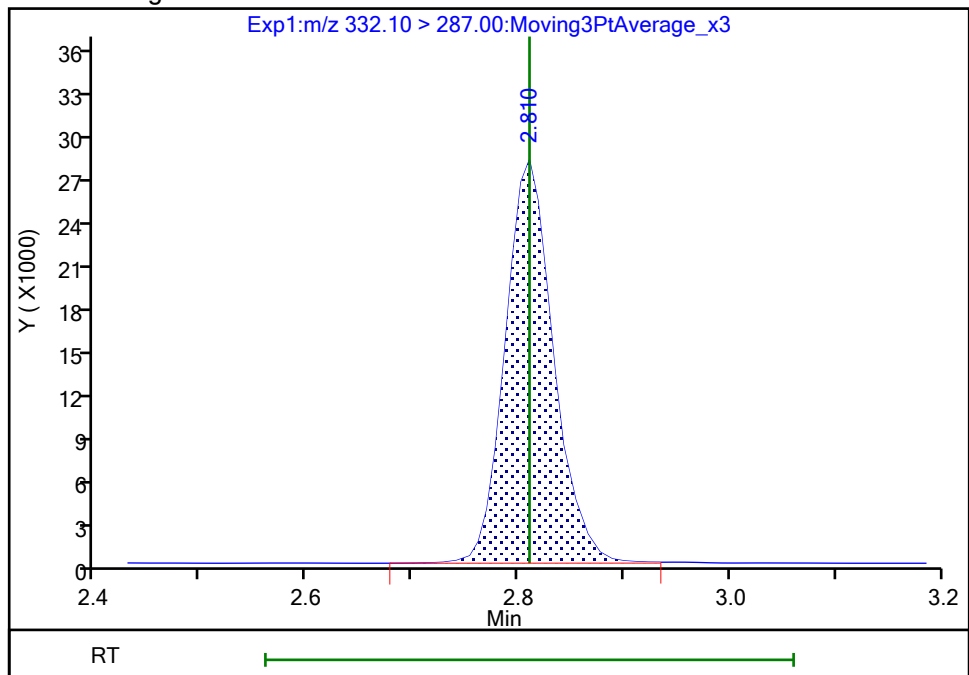
RT: 2.81
Area: 87934
Amount: 1.979949
Amount Units: ng/ml

Processing Integration Results



RT: 2.81
Area: 88388
Amount: 1.990171
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 09:11:56

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

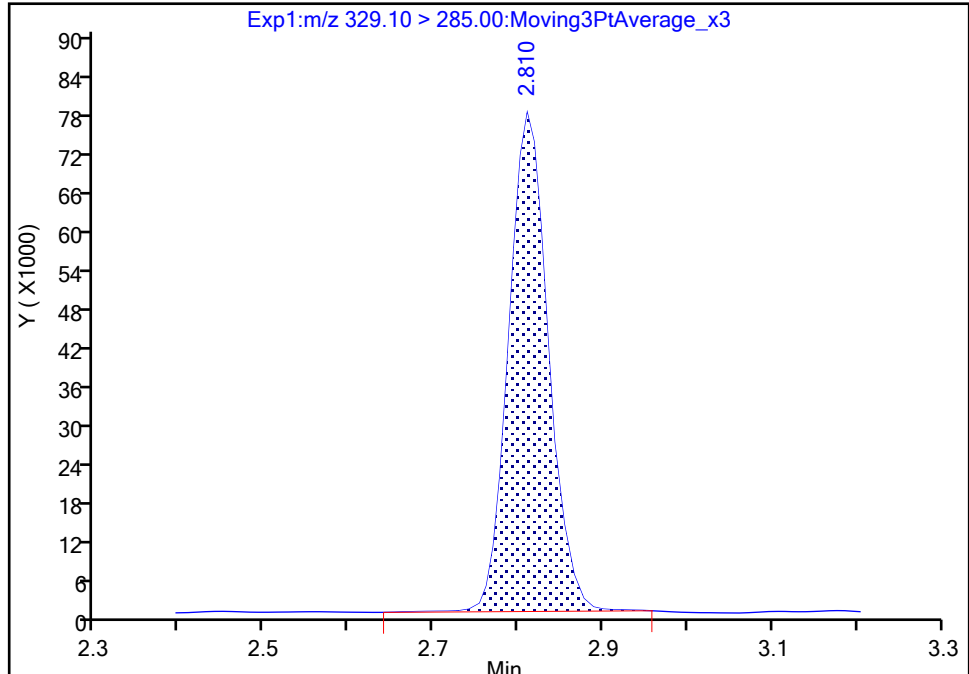
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A21.d
Injection Date: 27-Oct-2020 19:50:36 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 18 Worklist Smp#: 21
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

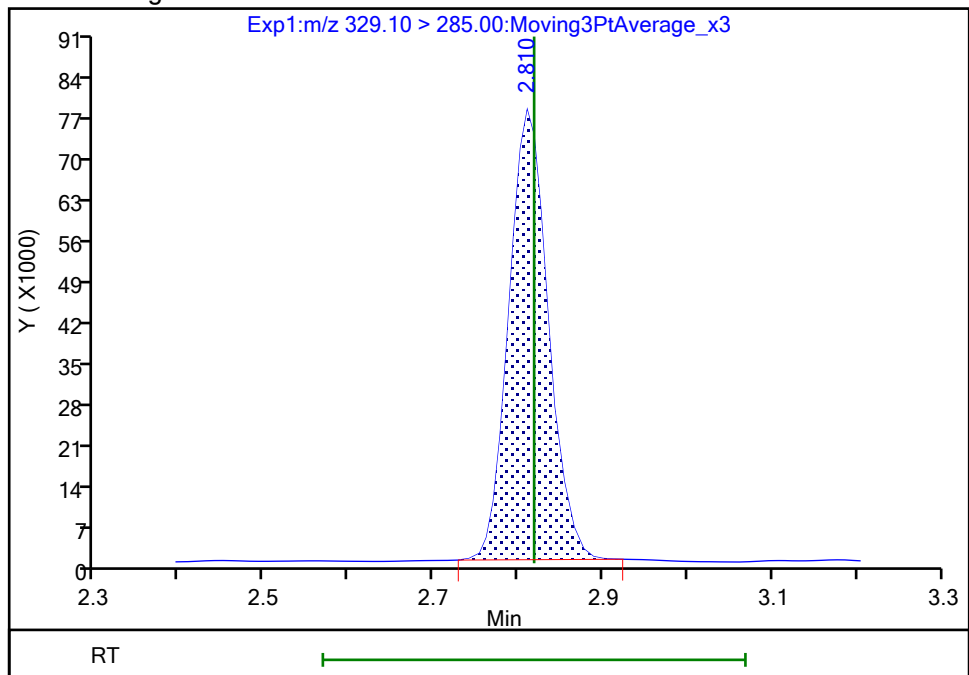
RT: 2.81
Area: 251852
Amount: 1.682540
Amount Units: ng/ml

Processing Integration Results



RT: 2.81
Area: 249347
Amount: 1.657248
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:25:33

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

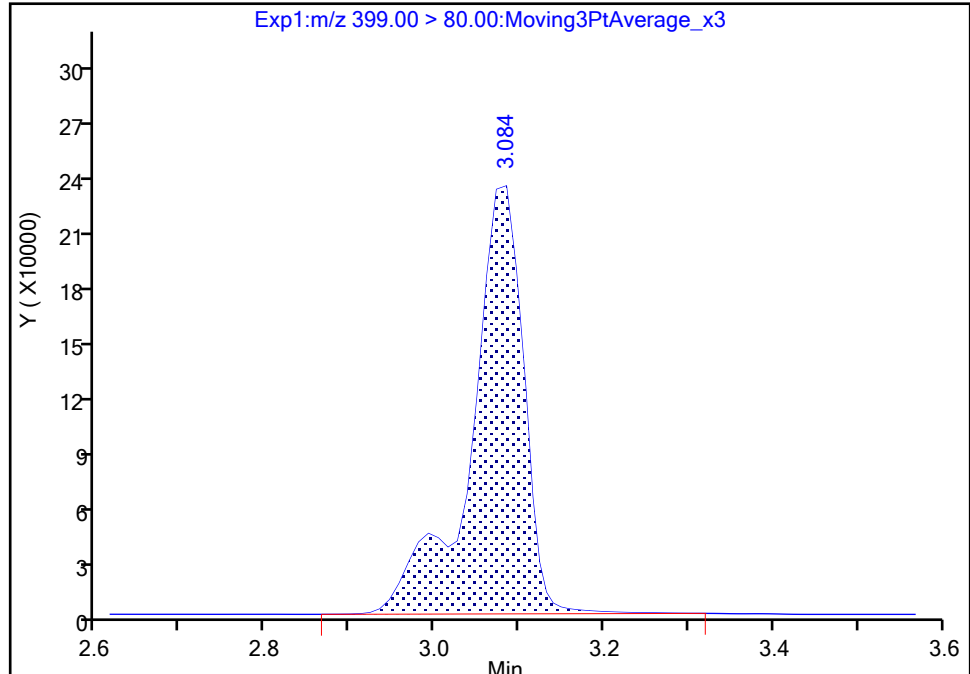
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A21.d
Injection Date: 27-Oct-2020 19:50:36 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 18 Worklist Smp#: 21
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

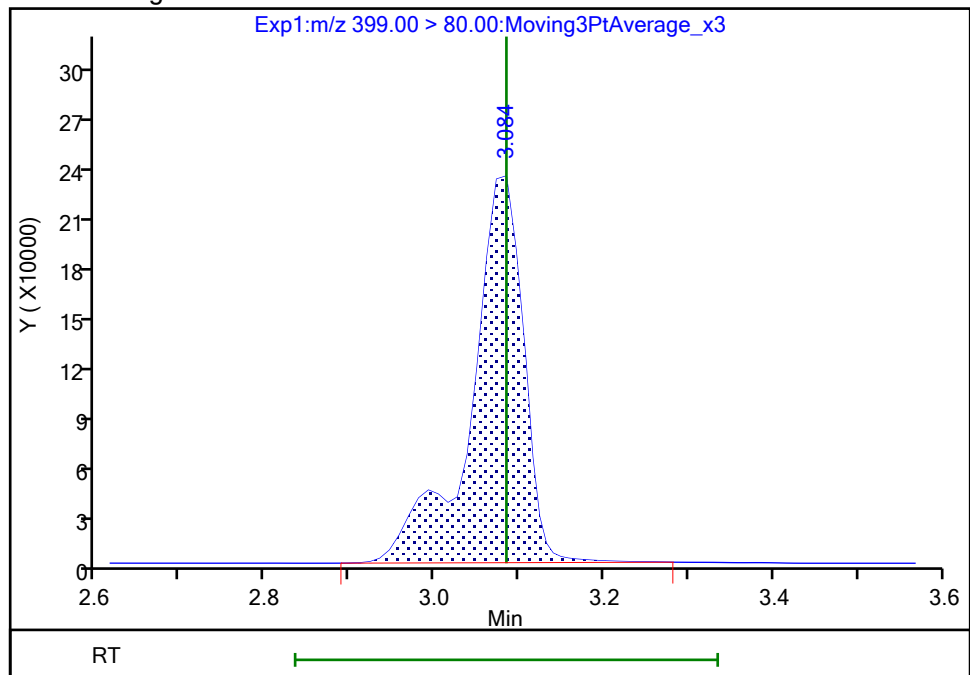
RT: 3.08
Area: 1001658
Amount: 2.161252
Amount Units: ng/ml

Processing Integration Results



RT: 3.08
Area: 999802
Amount: 2.157247
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:25:45

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

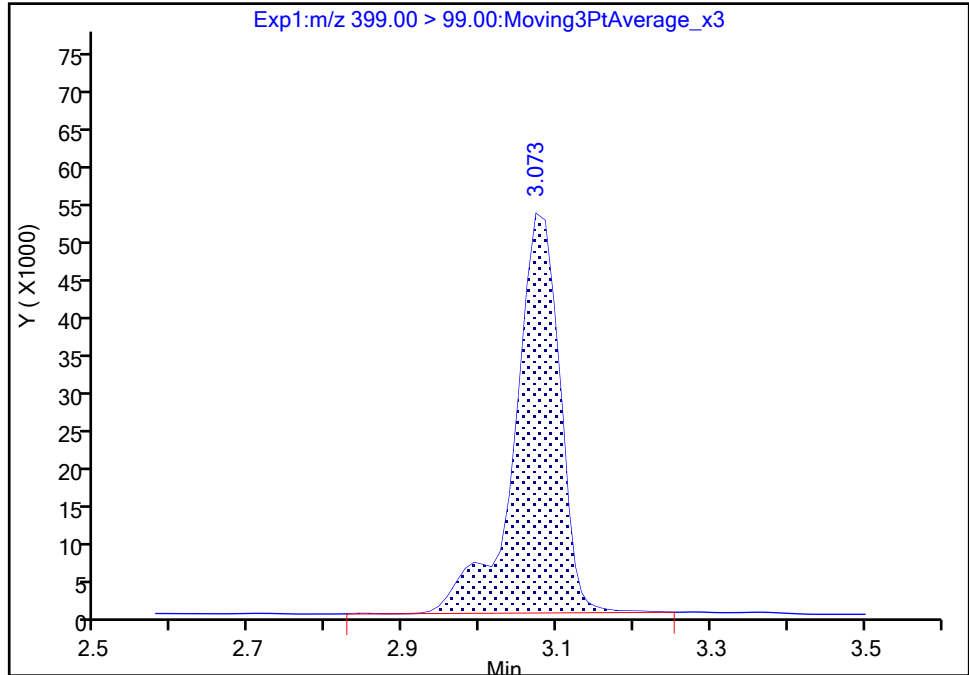
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A21.d
Injection Date: 27-Oct-2020 19:50:36 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 18 Worklist Smp#: 21
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

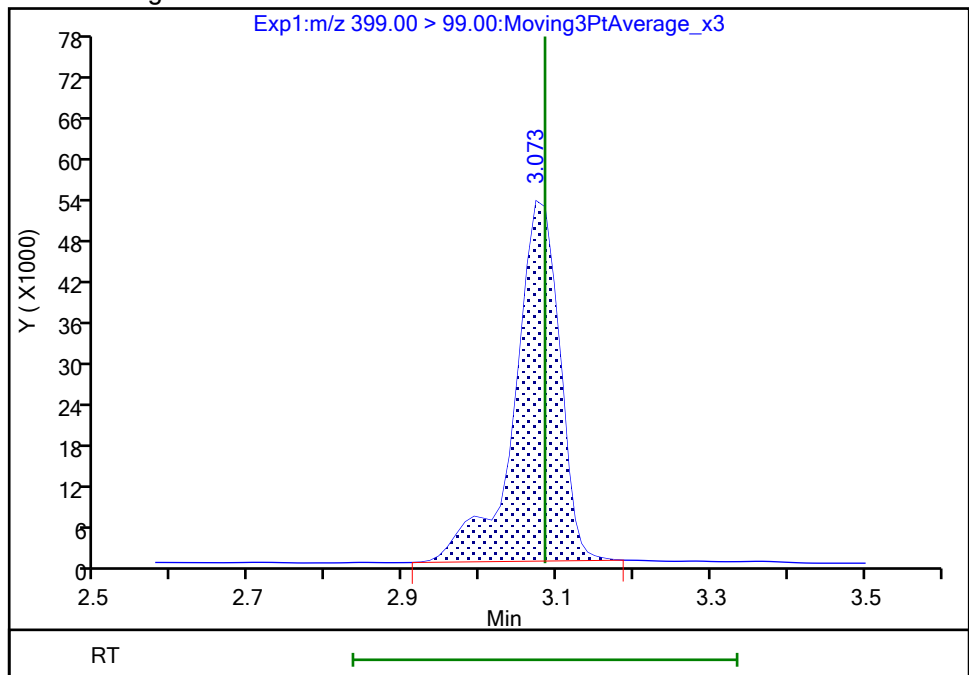
RT: 3.07
Area: 217921
Amount: 2.161252
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 215563
Amount: 2.157247
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:25:53

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 709 of 906

Eurofins TestAmerica, Burlington

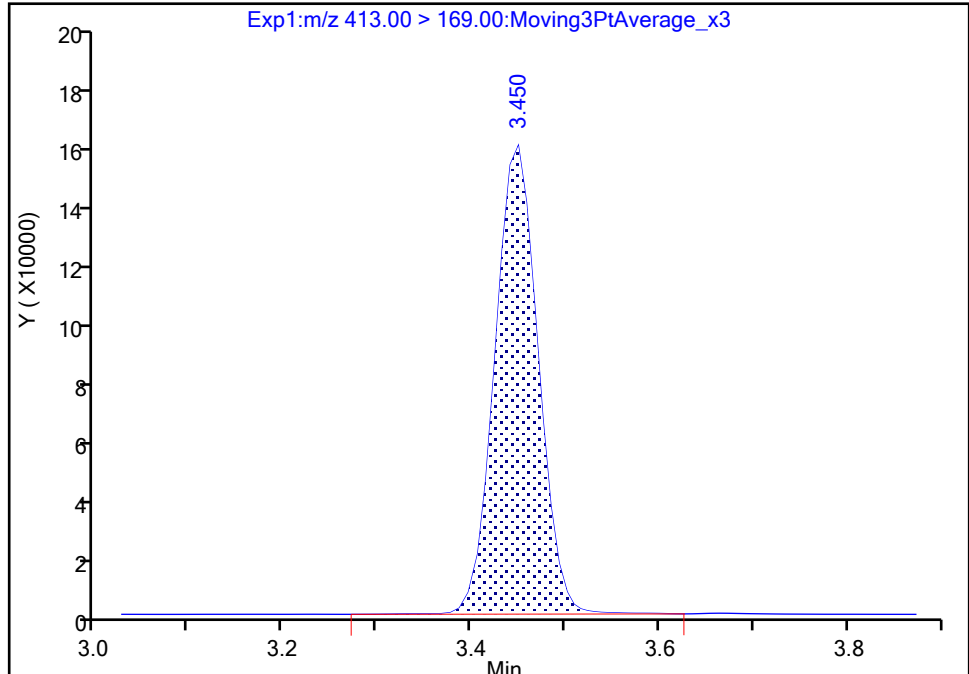
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A21.d
Injection Date: 27-Oct-2020 19:50:36 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 18 Worklist Smp#: 21
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

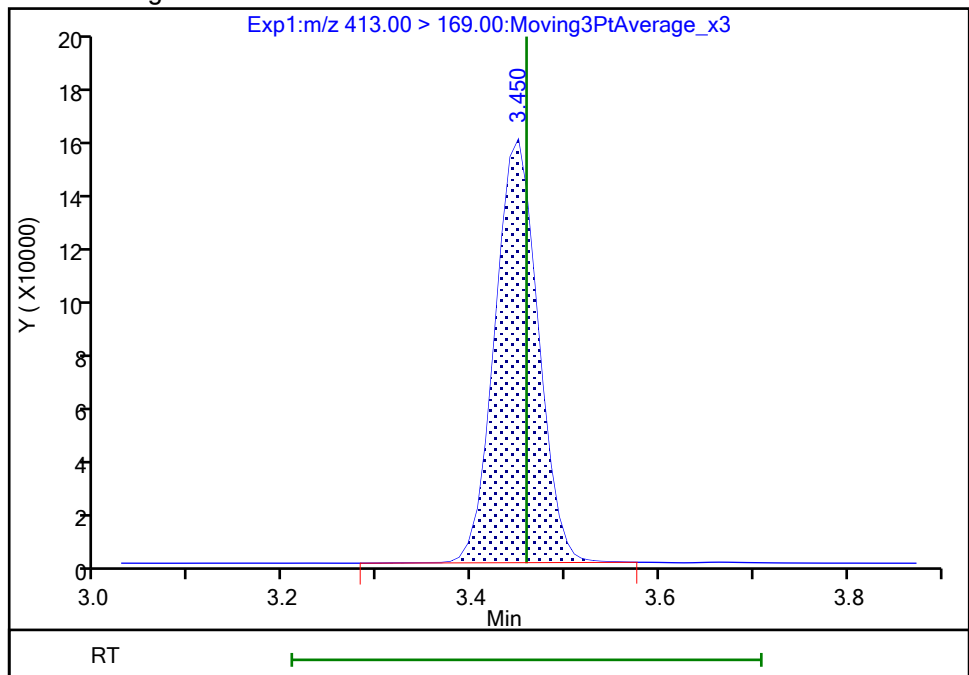
RT: 3.45
Area: 512573
Amount: 2.423881
Amount Units: ng/ml

Processing Integration Results



RT: 3.45
Area: 510233
Amount: 2.423881
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:26:11

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

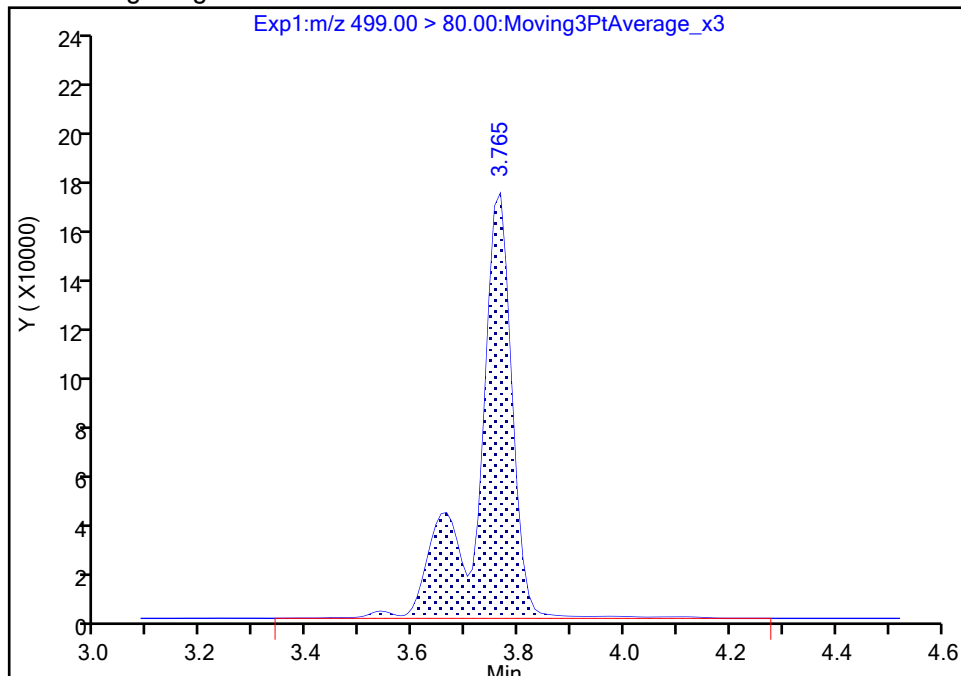
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A21.d
Injection Date: 27-Oct-2020 19:50:36 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 18 Worklist Smp#: 21
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

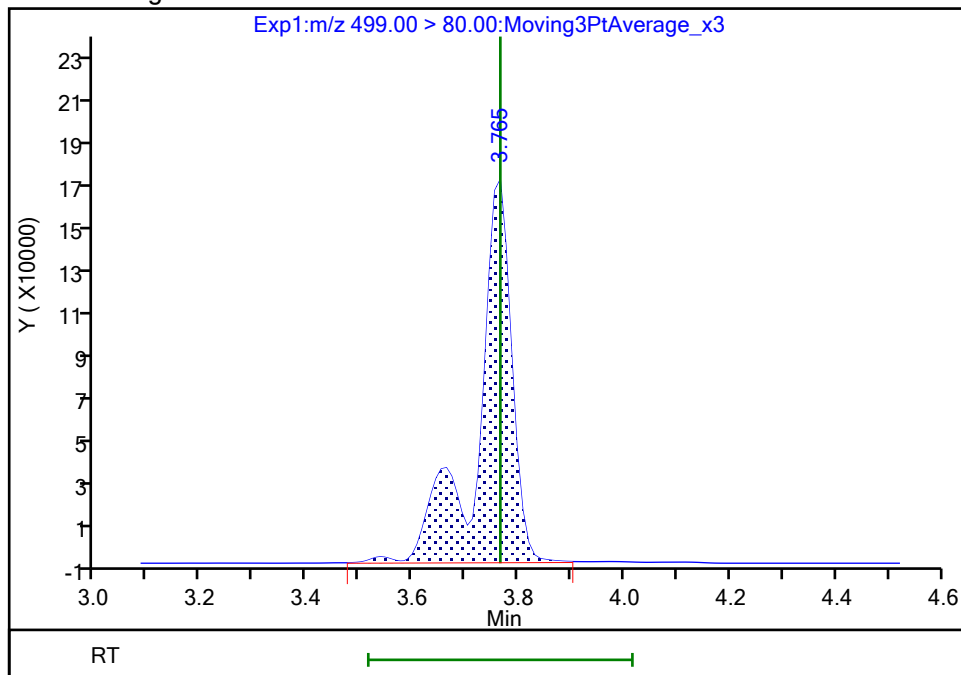
RT: 3.77
Area: 788115
Amount: 2.265585
Amount Units: ng/ml

Processing Integration Results



RT: 3.77
Area: 775393
Amount: 2.229013
Amount Units: ng/ml

Manual Integration Results



Reviewer: deannd, 28-Oct-2020 10:13:04

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A21.d

Injection Date: 27-Oct-2020 19:50:36

Instrument ID: LC812

Lims ID: CCV L5

Client ID:

Operator ID: lc812tech

ALS Bottle#:

18

Worklist Smp#:

21

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

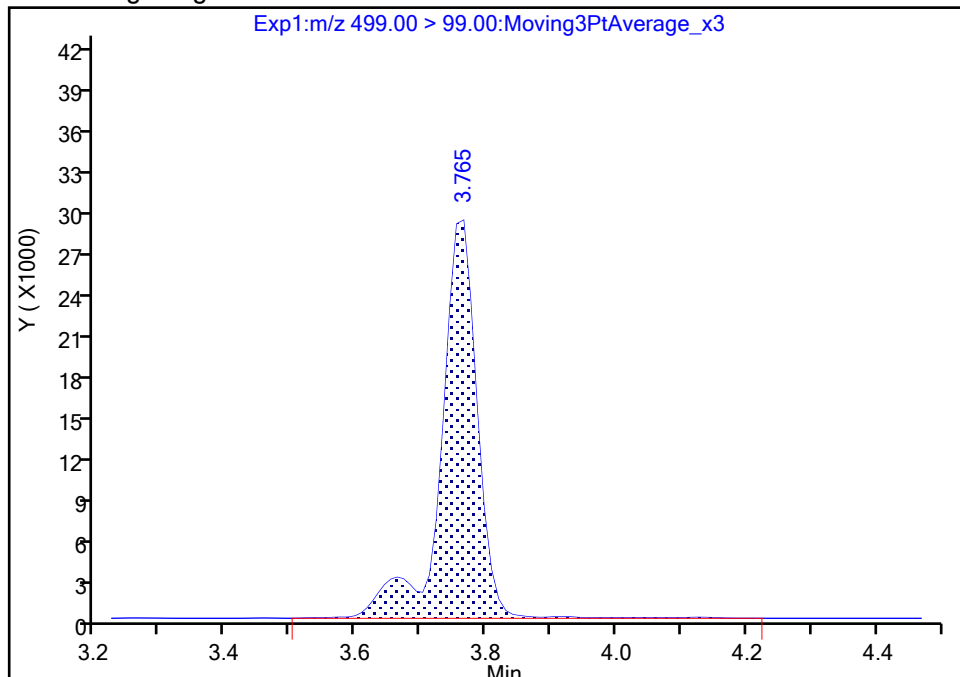
EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

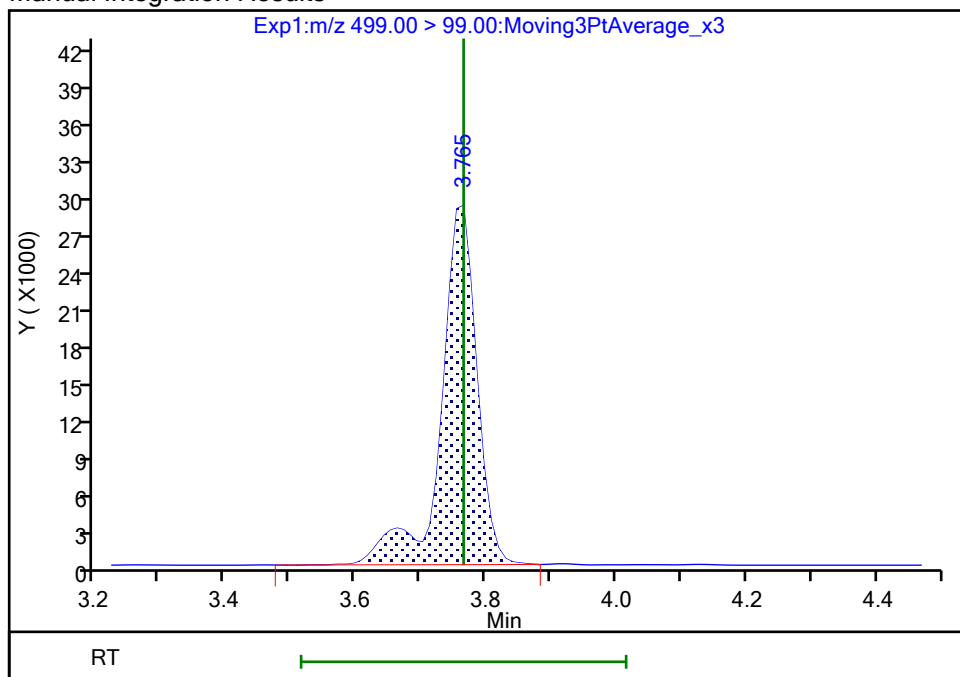
RT: 3.77
Area: 113530
Amount: 2.265585
Amount Units: ng/ml

Processing Integration Results



RT: 3.77
Area: 111841
Amount: 2.229013
Amount Units: ng/ml

Manual Integration Results



Reviewer: deannd, 28-Oct-2020 10:13:17

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

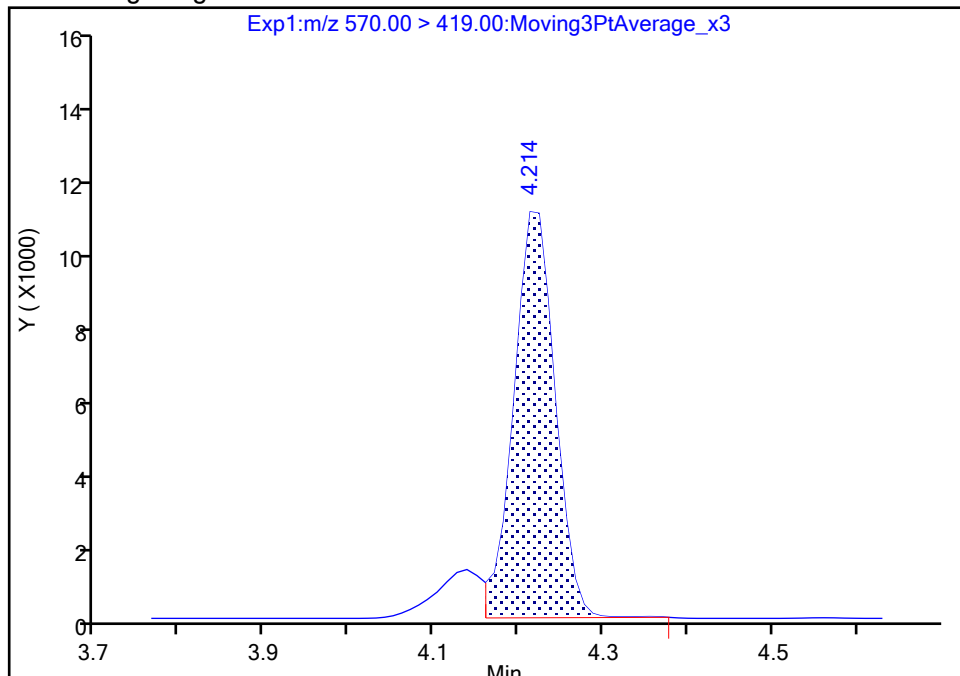
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A21.d
Injection Date: 27-Oct-2020 19:50:36 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 18 Worklist Smp#: 21
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

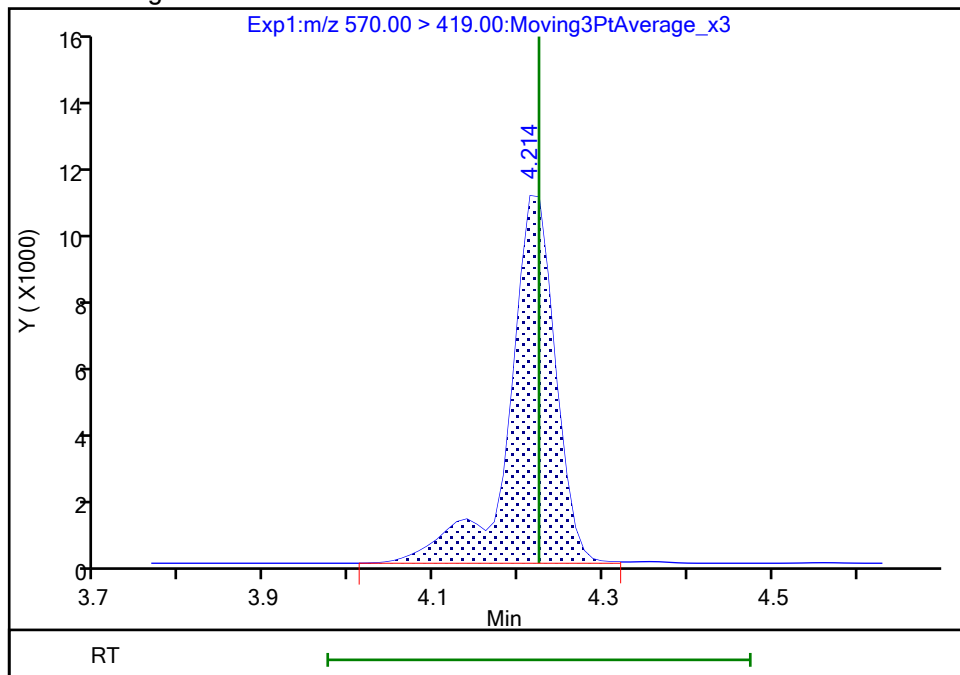
RT: 4.21
Area: 35447
Amount: 1.967123
Amount Units: ng/ml

Processing Integration Results



RT: 4.21
Area: 40272
Amount: 2.234885
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:26:55

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

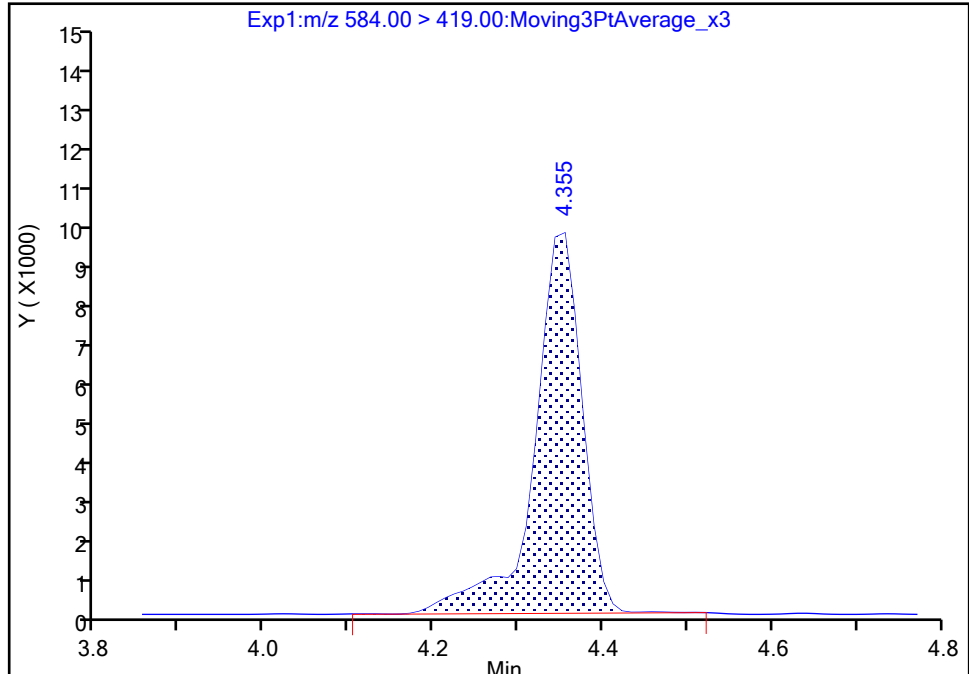
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A21.d
Injection Date: 27-Oct-2020 19:50:36 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 18 Worklist Smp#: 21
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

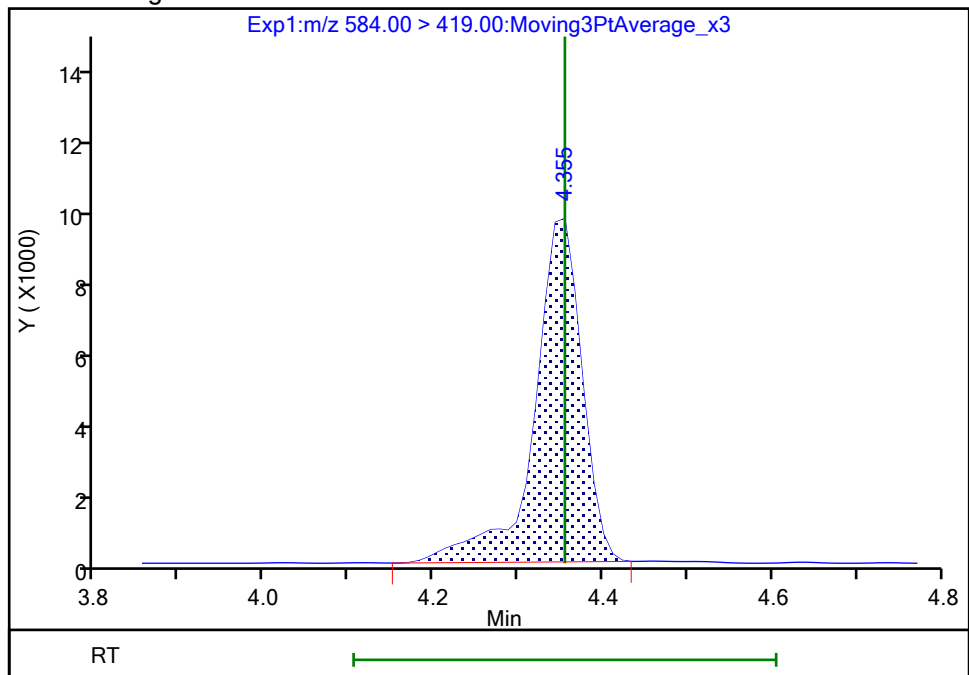
RT: 4.35
Area: 38032
Amount: 2.181167
Amount Units: ng/ml

Processing Integration Results



RT: 4.35
Area: 37816
Amount: 2.168780
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:27:16

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1

SDG No.: _____

Lab Sample ID: CCV 200-160481/31 Calibration Date: 10/27/2020 21:13

Instrument ID: LC812 Calib Start Date: 09/22/2020 19:30

GC Column: C-18 ID: 4.60 (mm) Calib End Date: 09/22/2020 20:11

Lab File ID: PA201027A31.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9347	0.8561		0.916	1.00	-8.4	40.0
Perfluoropentanoic acid (PFPeA)	AveID	1.056	1.066		1.01	1.00	0.9	40.0
Perfluorobutanesulfonic acid (PFBS)	AveID	0.996	1.032		0.916	0.884	3.6	40.0
1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	AveID	1.616	1.510		0.873	0.934	-6.6	50.0
Perfluorohexanoic acid (PFHxA)	AveID	1.007	1.035		1.03	1.00	2.8	40.0
Perfluoropentanesulfonic acid	AveID	1.184	1.190		0.943	0.938	0.5	50.0
HFPO-DA	AveID	2.128	1.539		0.723	1.00	-27.7	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.002	0.9919		0.990	1.00	-1.0	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.104	1.110		0.915	0.910	0.5	40.0
DONA	AveID	3.081	2.997		0.916	0.942	-2.7	50.0
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	AveID	0.7981	0.6872		0.816	0.948	-13.9	40.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.159	1.187		0.975	0.952	2.4	50.0
Perfluorooctanoic acid (PFOA)	AveID	1.032	1.035		1.00	1.00	0.2	40.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.087	1.039		0.887	0.928	-4.4	40.0
Perfluorononanoic acid (PFNA)	AveID	1.018	1.007		0.989	1.00	-1.1	40.0
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	AveID	0.9564	0.8546		0.833	0.932	-10.6	50.0
Perfluorononanesulfonic acid	AveID	0.8588	0.7825		0.875	0.960	-8.9	50.0
Perfluorodecanoic acid (PFDA)	AveID	0.9894	0.9467		0.957	1.00	-4.3	40.0
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	AveID	0.3958	0.3763		0.911	0.958	-4.9	40.0
Perfluorooctanesulfonamide (PFOSA)	AveID	0.9348	0.9260		0.991	1.00	-0.9	40.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.9437	0.9536		1.01	1.00	1.0	40.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.7186	0.6578		0.882	0.964	-8.5	50.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.9863	1.004		1.02	1.00	1.7	40.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.9155	0.7349		0.803	1.00	-19.7	40.0
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	AveID	0.8250	0.7262		0.829	0.942	-12.0	50.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9752	1.034		1.06	1.00	6.0	40.0
10:2 FTS	AveID	0.2199	0.2036		0.893	0.964	-7.4	50.0
Perfluorododecanesulfonic acid (PFDoS)	AveID	0.2306	0.1810		0.760	0.968	-21.5	50.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.8282	0.8523		1.03	1.00	2.9	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2290	0.2421		1.06	1.00	5.7	40.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Lab Sample ID: CCV 200-160481/31 Calibration Date: 10/27/2020 21:13
 Instrument ID: LC812 Calib Start Date: 09/22/2020 19:30
 GC Column: C-18 ID: 4.60 (mm) Calib End Date: 09/22/2020 20:11
 Lab File ID: PA201027A31.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9424		1.06	1.00	6.1	40.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	0.7473	0.7851		1.05	1.00	5.1	50.0
13C4 PFBA	Ave	1.433	1.578		1.38	1.25	10.1	50.0
13C5 PFPeA	Ave	1.027	1.011		1.23	1.25	-1.6	50.0
13C3 PFBS	Ave	1.251	1.198		1.11	1.16	-4.2	50.0
M2-4:2 FTS	Ave	0.0939	0.0985		1.22	1.17	4.8	50.0
13C2 PFHxA	Ave	1.058	1.055		1.25	1.25	-0.2	50.0
13C3 HFPO-DA	Ave	0.0985	0.1380		1.75	1.25	40.0	50.0
13C4 PFHpA	Ave	0.9620	0.9363		1.22	1.25	-2.7	50.0
18O2 PFHxS	Ave	0.8974	0.8990		1.18	1.18	0.2	50.0
M2-6:2 FTS	Ave	0.1199	0.1270		1.26	1.19	5.9	50.0
13C4 PFOA	Ave	0.9845	0.9309		1.18	1.25	-5.4	50.0
13C4 PFOS	Ave	0.7341	0.7246		1.18	1.20	-1.3	50.0
13C5 PFNA	Ave	0.8296	0.7196		1.08	1.25	-13.3	50.0
13C2 PFDA	Ave	0.7956	0.6879		1.08	1.25	-13.5	50.0
M2-8:2 FTS	Ave	0.1413	0.1487		1.26	1.20	5.3	50.0
13C8 FOSA	Ave	1.282	1.185		1.16	1.25	-7.6	50.0
d3-NMeFOSAA	Ave	0.0453	0.0345		0.951	1.25	-23.9	50.0
13C2 PFUnA	Ave	0.6006	0.4977		1.04	1.25	-17.1	50.0
d5-NEtFOSAA	Ave	0.0487	0.0451		1.16	1.25	-7.3	50.0
13C2 PFDoA	Ave	0.6348	0.4819		0.949	1.25	-24.1	50.0
13C2 PFTeDA	Ave	0.4522	0.3586		0.991	1.25	-20.7	50.0
13C2 PFHxDA	Ave	0.5124	0.3600		0.878	1.25	-29.8	50.0

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A31.d
 Lims ID: CCV L4
 Client ID:
 Sample Type: CCV
 Inject. Date: 27-Oct-2020 21:13:21 ALS Bottle#: 28 Worklist Smp#: 31
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: CCV L4
 Misc. Info.: 200-0043412-031 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Sublist: chrom-PFC_LC812*sub3
 Method: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 28-Oct-2020 13:20:03 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1652

First Level Reviewer: khanphomeea

Date: 28-Oct-2020 10:35:51

Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.991	1.981	0.010	0.577	770462	1.38		110	13960	
2 Perfluorobutanoic acid										M
212.90 > 169.00	1.991	1.990	0.001	1.000	527698	0.9159		91.6	186	M
D 3 13C5 PFPeA										
267.90 > 223.00	2.326	2.326	0.0	0.674	493789	1.23		98.4	3067	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.326	2.326	0.0	1.000	421080	1.01		101	30.5	M
D 47 13C3 PFBS										M
301.90 > 80.00	2.353	2.339	0.014	0.682	544234	1.11		95.8	199763	M
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.353	2.353	0.0	1.000	427179	0.9158	Target=2.07	104	726	
298.90 > 99.00	2.353	2.353	0.0	1.000	219464		1.95(1.04-3.11)		451	
D 60 M2-4:2 FTS										M
329.00 > 81.00	2.666	2.665	0.001	0.773	44915	1.22		105	124	M
61 1H,1H,2H,2H-perfluorohexanesulfo										
327.00 > 307.00	2.666	2.665	0.001	1.000	54252	0.8726		93.4	1153	
D 7 13C2 PFHxA										
315.00 > 270.00	2.704	2.703	0.001	0.784	515283	1.25		99.8	3708	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.704	2.703	0.001	1.000	426599	1.03	Target=12.44	103	241	
313.00 > 119.00	2.704	2.703	0.001	1.000	36442		11.71(6.22-18.66)		111	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.704	2.703	0.001	0.876	392114	0.9428	Target=3.64	101	1316	
349.00 > 99.00	2.704	2.703	0.001	0.876	106405		3.69(1.82-5.46)		437	
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.819	2.810	0.009	0.817	67396	1.75		140	1359	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
67 Perfluoro(2-propoxypropanoic) ac										M
329.10 > 285.00	2.819	2.818	0.001	1.000	82966	0.7232		72.3	33.9	M
D 11 18O2 PFHxS										
403.00 > 84.00	3.085	3.084	0.001	0.894	415370	1.18		100	1814	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.085	3.084	0.001	1.000	354936	0.9149	Target=4.60	101	931	M
399.00 > 99.00	3.085	3.084	0.001	1.000	74901		4.74(2.30-6.91)		163	M
D 9 13C4 PFHpA										
367.00 > 322.00	3.085	3.084	0.001	0.894	457250	1.22		97.3	4150	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.085	3.084	0.001	1.000	362834	0.9899	Target=3.34	99.0	195	
363.00 > 169.00	3.085	3.084	0.001	1.000	108833		3.33(1.67-5.01)		474	
77 DONA										
377.00 > 251.00	3.124	3.124	0.0	0.830	799301	0.9164	Target=2.44	97.3	2074	
377.00 > 85.00	3.124	3.124	0.0	0.830	340463		2.35(1.22-3.67)		975	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.441	3.441	0.0	0.914	319837	0.9751	Target=7.08	102	1412	
449.00 > 99.00	3.441	3.441	0.0	0.914	46147		6.93(3.54-10.63)		597	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.441	3.441	0.0	0.997	58946	1.26		106	564	
13 1H,1H,2H,2H-perfluorooctanesulfo										
427.00 > 407.00	3.441	3.441	0.0	1.000	32339	0.8163		86.1	1244	
D 14 13C4 PFOA										
417.00 > 372.00	3.450	3.450	0.0	1.000	454644	1.18		94.6	3161	
* 62 13C2 PFOA										
415.00 > 370.00	3.450	3.450	0.0		488384	1.25			3421	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.450	3.458	-0.008	1.000	376324	1.00	Target=2.29	100	269	
413.00 > 169.00	3.450	3.458	-0.008	1.000	160409		2.35(1.14-3.43)		498	
D 18 13C4 PFOS										
503.00 > 80.00	3.766	3.765	0.001	1.092	338304	1.18		98.7	1670	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.766	3.765	0.001	1.000	272966	0.8873	Target=7.10	95.6	286	M
499.00 > 99.00	3.766	3.765	0.001	1.000	37407		7.30(3.55-10.64)		318	M
D 19 13C5 PFNA										
468.00 > 423.00	3.786	3.786	0.0	1.098	351429	1.08		86.7	3329	
20 Perfluorononanoic acid										
463.00 > 419.00	3.786	3.786	0.0	1.000	283168	0.9891	Target=5.83	98.9	127	
463.00 > 169.00	3.786	3.786	0.0	1.000	49969		5.67(2.91-8.74)		1002	
69 9-Chlorohexadecafluoro-3-oxanona										
531.00 > 351.00	3.922	3.922	0.0	1.042	225479	0.8328		89.4	2406	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.052	4.052	0.0	1.076	212674	0.8747	Target=3.38	91.1	1611	
549.00 > 99.00	4.052	4.052	0.0	1.076	62785		3.39(1.69-5.08)		542	
D 23 13C2 PFDA										
515.00 > 470.00	4.082	4.082	0.0	1.183	335951	1.08		86.5	4518	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
24 Perfluorodecanoic acid										
513.00 > 469.00	4.082	4.082	0.0	1.000	254433	0.9568	Target=6.81 6.28(3.41-10.22)	95.7	626	
513.00 > 169.00	4.082	4.082	0.0	1.000	40543				497	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.092	4.092	0.0	1.186	69569	1.26		105	240	
25 1H,1H,2H,2H-perfluorodecanesulfo										
527.00 > 507.00	4.092	4.092	0.0	1.000	20945	0.9108		95.1	620	
D 21 13C8 FOSA										
506.00 > 78.00	4.139	4.139	0.0	1.200	578669	1.16		92.4	3091	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.151	4.139	0.012	1.003	428681	0.99		99.1	1030	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.214	4.214	0.0	1.221	16838	0.9514		76.1	48.4	
28 N-methylperfluorooctanesulfonami										
570.00 > 419.00	4.224	4.224	0.0	1.002	12845	1.01		101	267	M
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.310	4.309	0.001	1.144	179513	0.8825	Target=3.31 3.15(1.66-4.97)	91.5	1373	
599.00 > 99.00	4.310	4.309	0.001	1.144	56931				523	
D 30 13C2 PFUnA										
565.00 > 520.00	4.344	4.343	0.001	1.259	243093	1.04		82.9	3492	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.344	4.343	0.001	1.000	195161	1.02	Target=6.57 6.05(3.28-9.85)	102	370	
563.00 > 169.00	4.344	4.343	0.001	1.000	32251				672	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.355	4.343	0.012	1.262	22049	1.16		92.7	461	
33 N-ethylperfluorooctanesulfonamid										
584.00 > 419.00	4.355	4.355	0.0	1.000	12963	0.8027		80.3	294	M
66 11-Chloroeicosafuoro-3-oxaundec										
631.00 > 451.00	4.433	4.422	0.011	1.177	193659	0.8292		88.0	2498	
D 36 13C2 PFDaA										
615.00 > 570.00	4.573	4.561	0.012	1.326	235371	0.9491		75.9	2443	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.573	4.561	0.012	1.000	194612	1.06	Target=5.16 4.73(2.58-7.75)	106	377	
613.00 > 169.00	4.573	4.561	0.012	1.000	41101				954	
74 1H,1H,2H,2H-perfluorododecanesul										
627.00 > 607.00	4.585	4.585	0.0	1.121	11405	0.8926		92.6	821	
75 Perfluorododecanesulfonic acid (										
699.00 > 80.00	4.745	4.736	0.009	1.260	49609	0.7600	Target=0.45 0.44(0.22-0.67)	78.5	387	
699.00 > 99.00	4.745	4.736	0.009	1.260	113896				858	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.780	4.772	0.008	1.045	160494	1.03	Target=3.30 3.00(1.65-4.95)	103	257	
663.00 > 169.00	4.771	4.772	-0.001	1.043	53561				1687	
D 43 13C2 PFTeDA										
715.00 > 670.00	4.969	4.969	0.0	1.440	175131	0.99		79.3	4265	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.969	4.969	0.0	1.000	33921	1.06	Target=1.06 1.10(0.53-1.59)	106	815	
713.00 > 219.00	4.969	4.969	0.0	1.000	30728				1942	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 44 13C2 PFHxDA										
815.00 > 770.00	5.329	5.329	0.0	1.545	175794	0.8780		70.2	2657	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.339	5.329	0.010	1.002	132540	1.06	Target=3.06	106	159	
813.00 > 169.00	5.339	5.329	0.010	1.002	42847		3.09(1.53-4.58)		1661	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.694	5.694	0.0	1.069	110416	1.05	Target=2.82	105	363	
913.00 > 169.00	5.694	5.694	0.0	1.069	41702		2.65(1.41-4.24)		1174	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

PFAS32NCIC4_00012

Amount Added: 100.00

Units: uL

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A31.d

Injection Date: 27-Oct-2020 21:13:21

Instrument ID: LC812

Lims ID: CCV L4

Client ID:

Operator ID: lc812tech

ALS Bottle#: 28

Worklist Smp#: 31

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

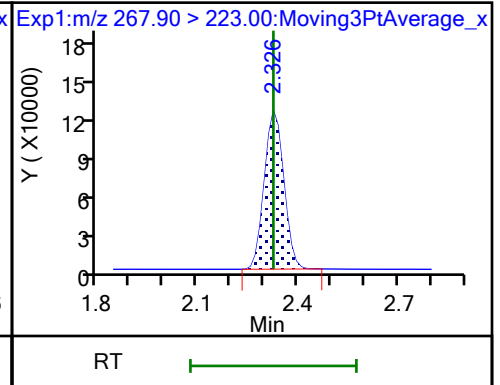
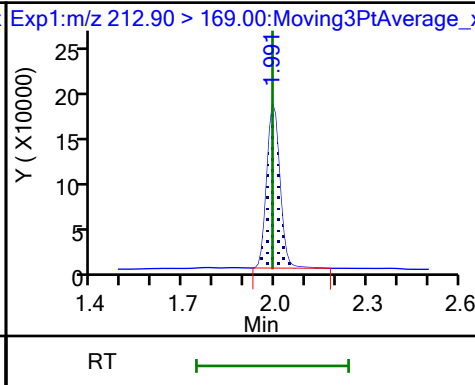
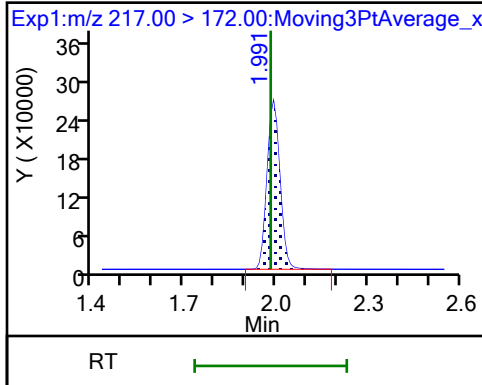
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid (M)

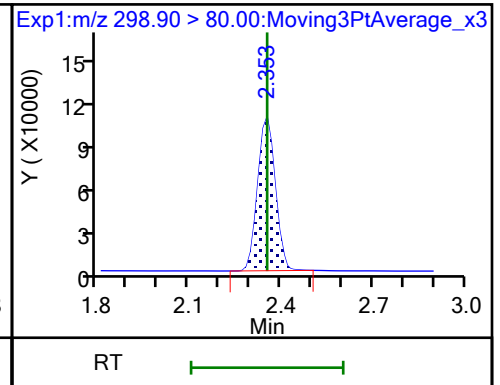
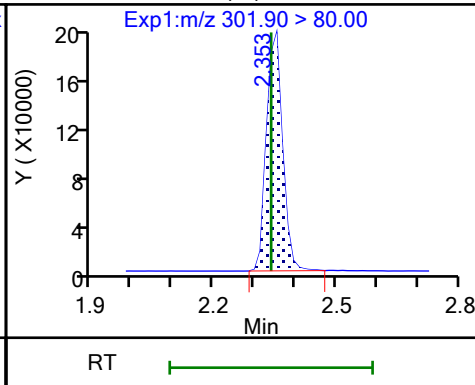
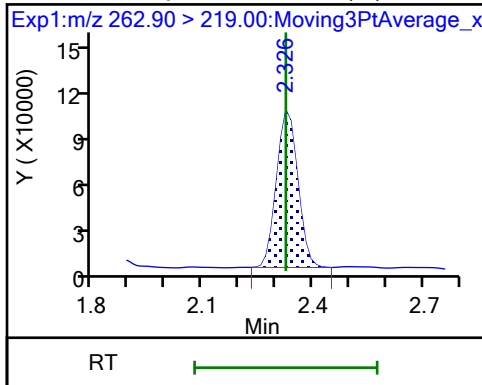
D 3 13C5 PFPeA



4 Perfluoropentanoic acid (M)

D 47 13C3 PFBS (M)

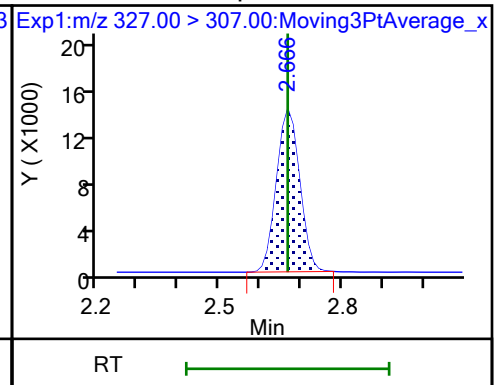
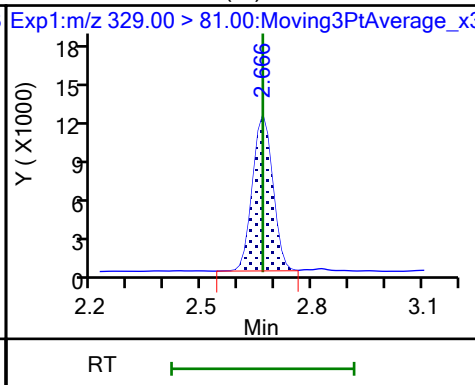
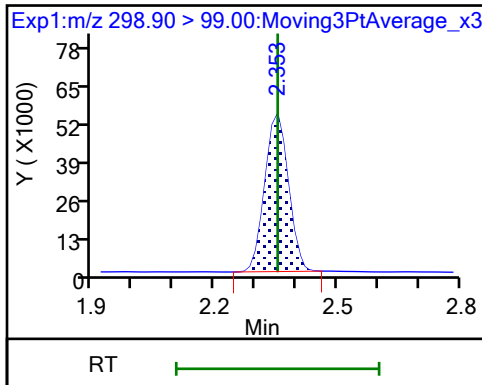
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

D 60 M2-4:2 FTS (M)

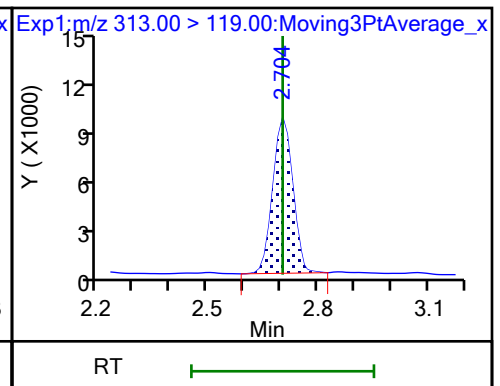
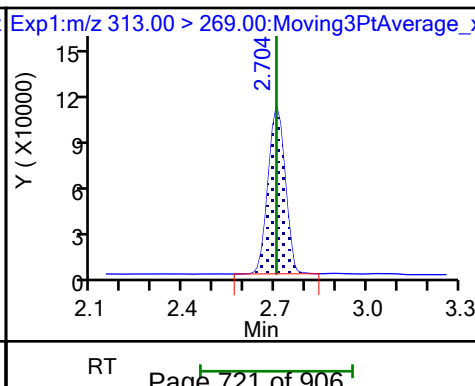
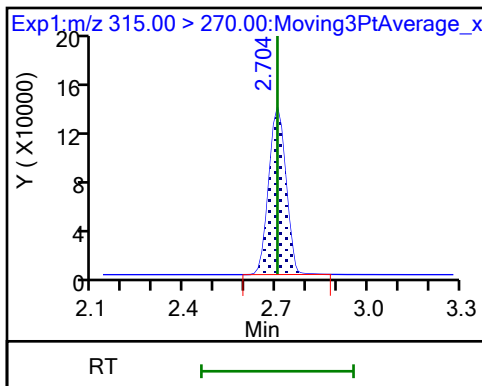
61 1H,1H,2H,2H-perfluorohexanesulfo

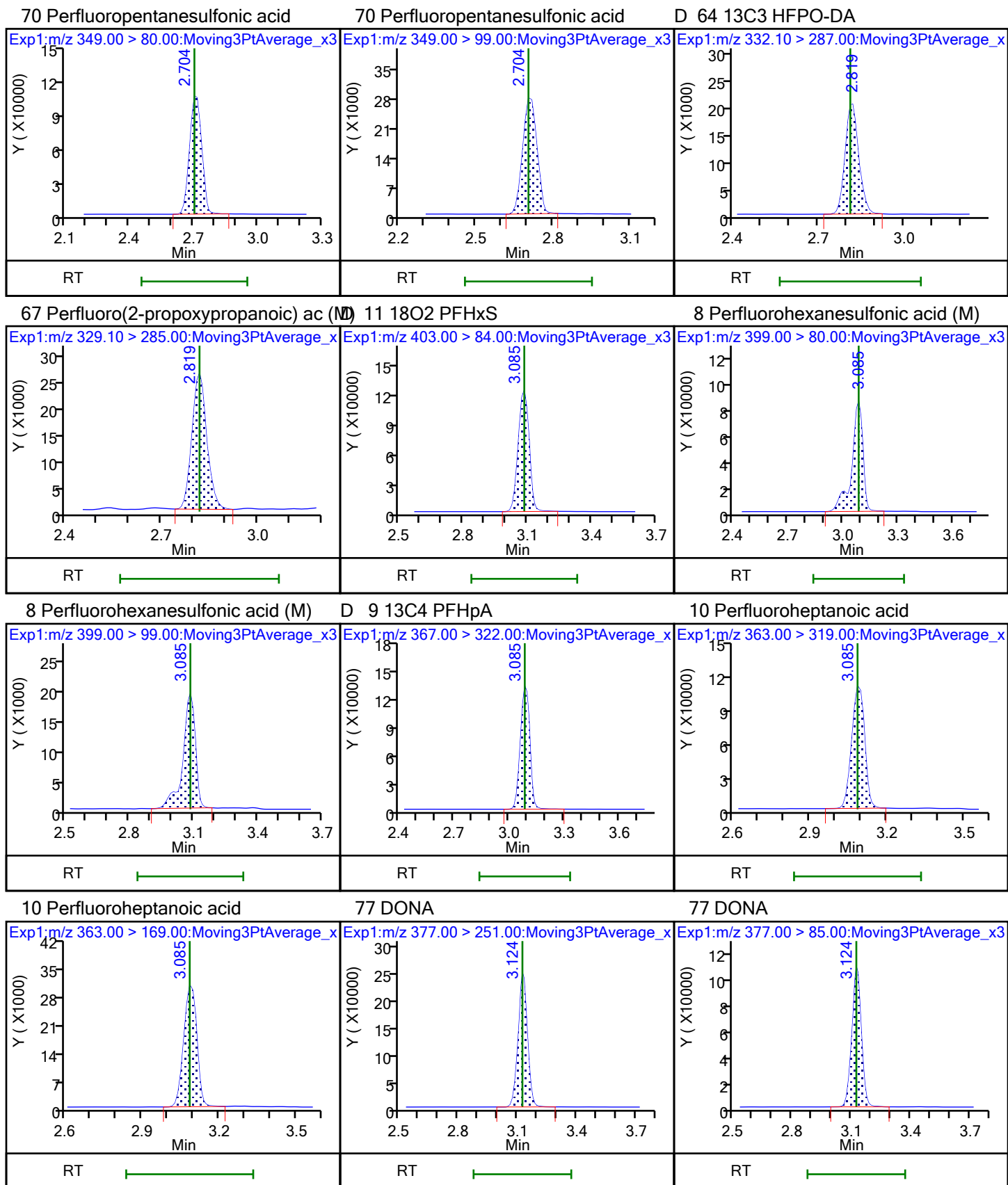


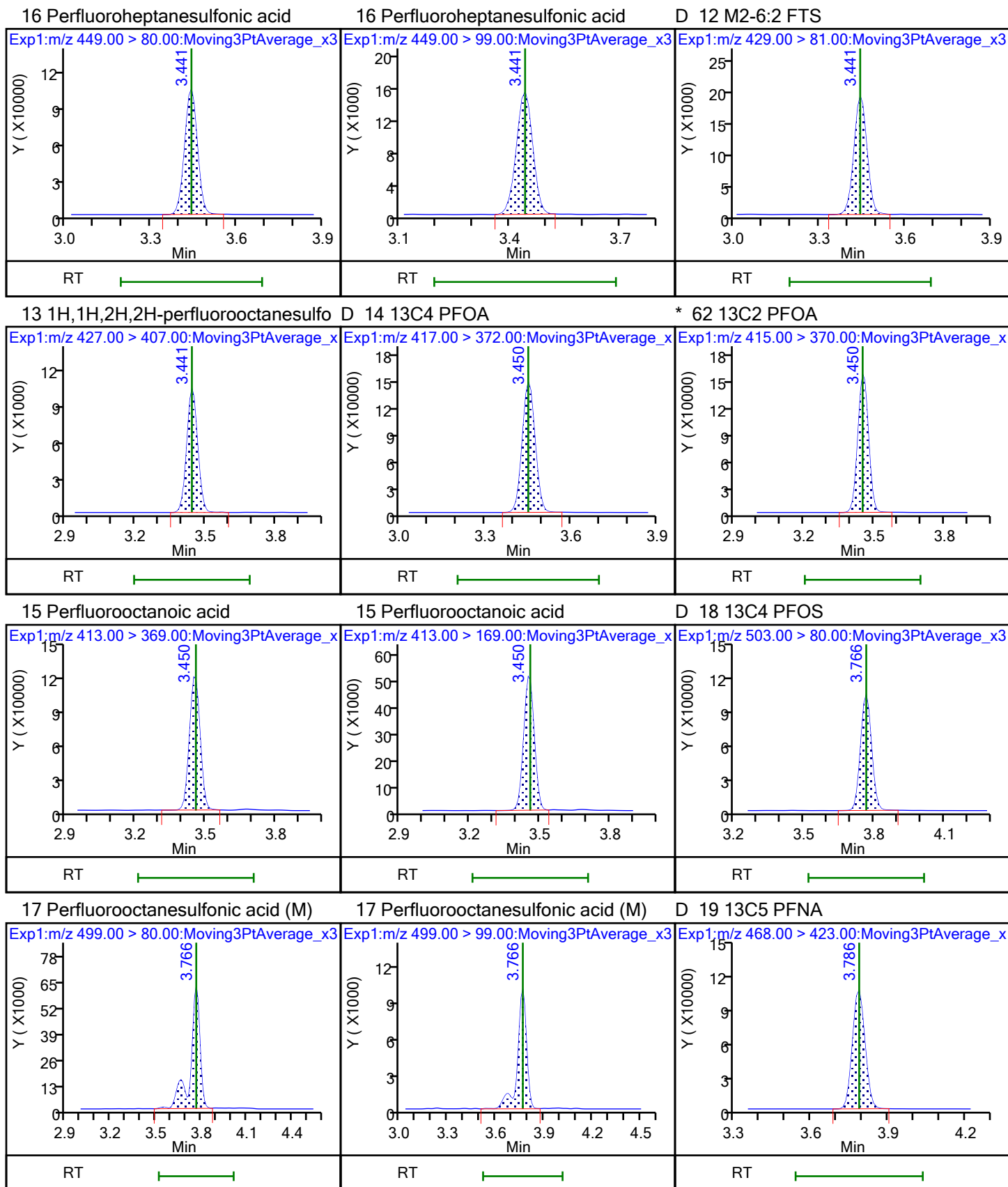
D 7 13C2 PFHxA

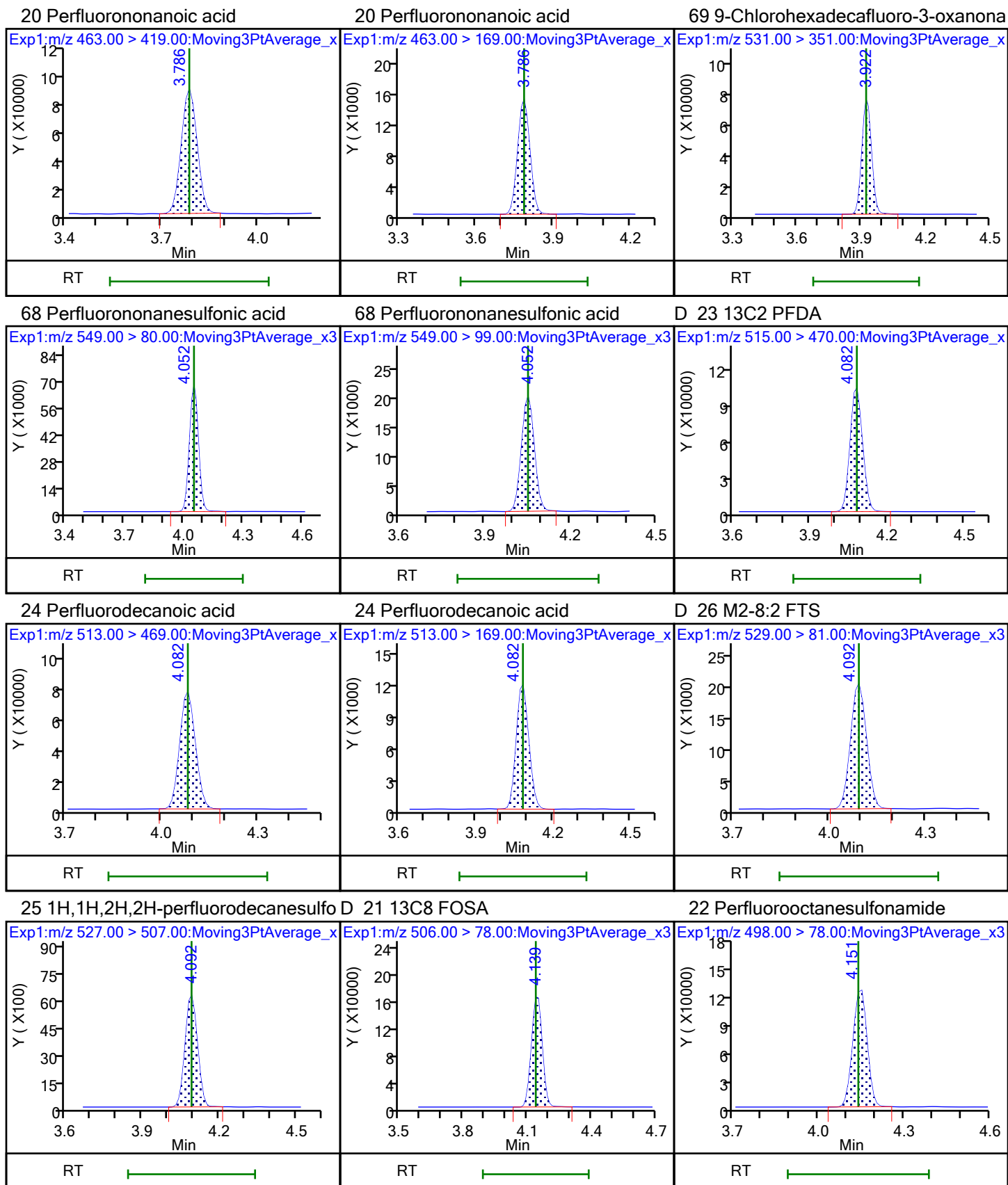
6 Perfluorohexanoic acid

6 Perfluorohexanoic acid



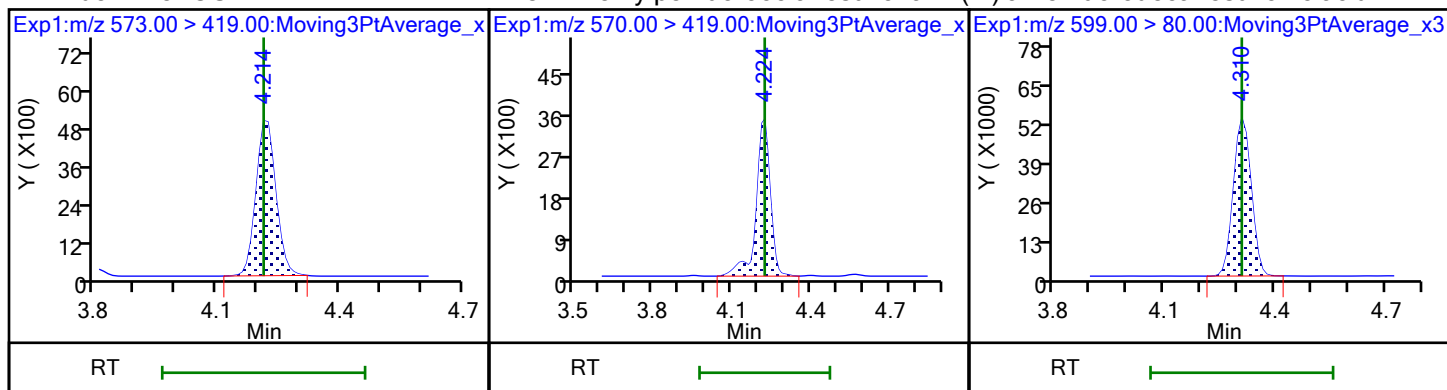






D 27 d3-NMeFOSAA

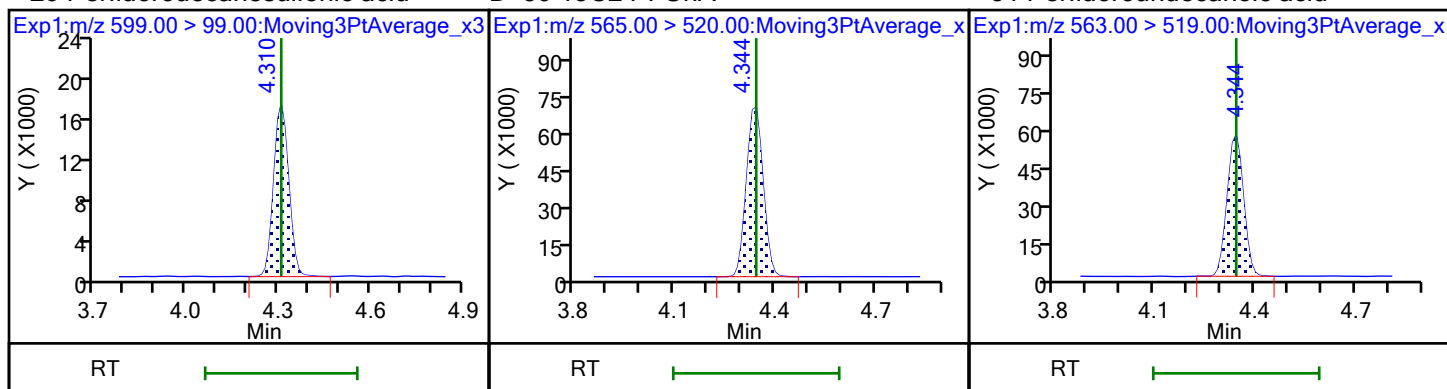
28 N-methylperfluorooctanesulfonami (M29 Perfluorodecanesulfonic acid



29 Perfluorodecanesulfonic acid

D 30 13C2 PFUnA

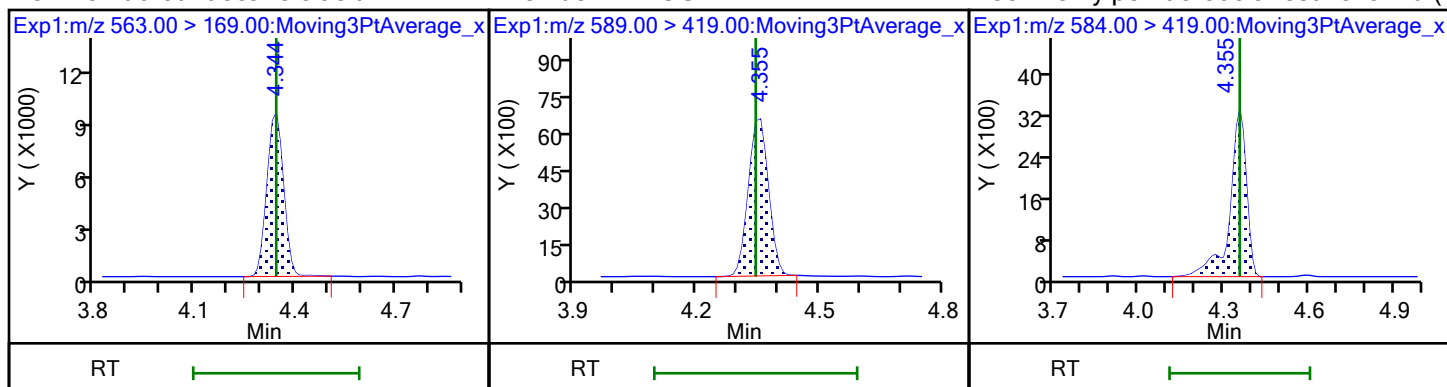
31 Perfluoroundecanoic acid



31 Perfluoroundecanoic acid

D 32 d5-NEtFOSAA

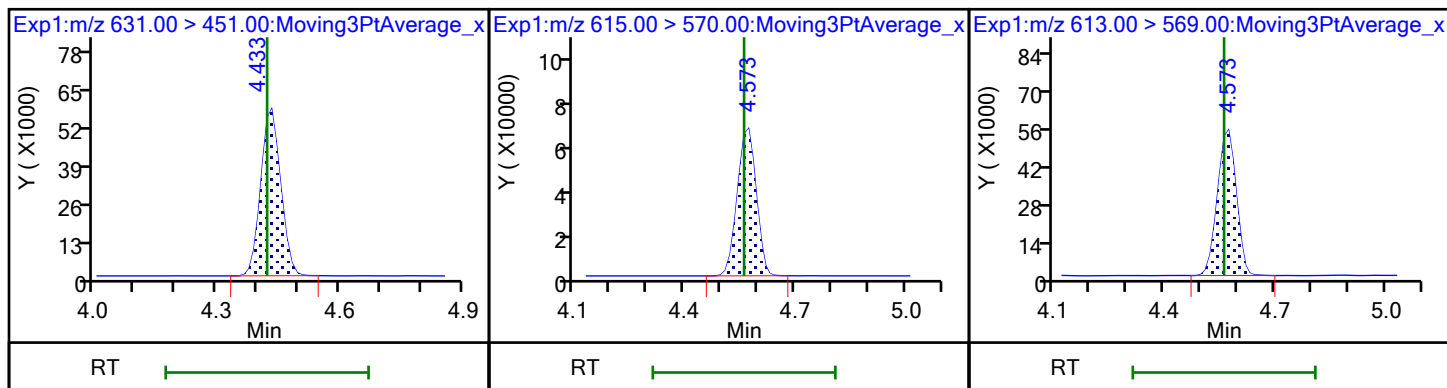
33 N-ethylperfluorooctanesulfonamid (M

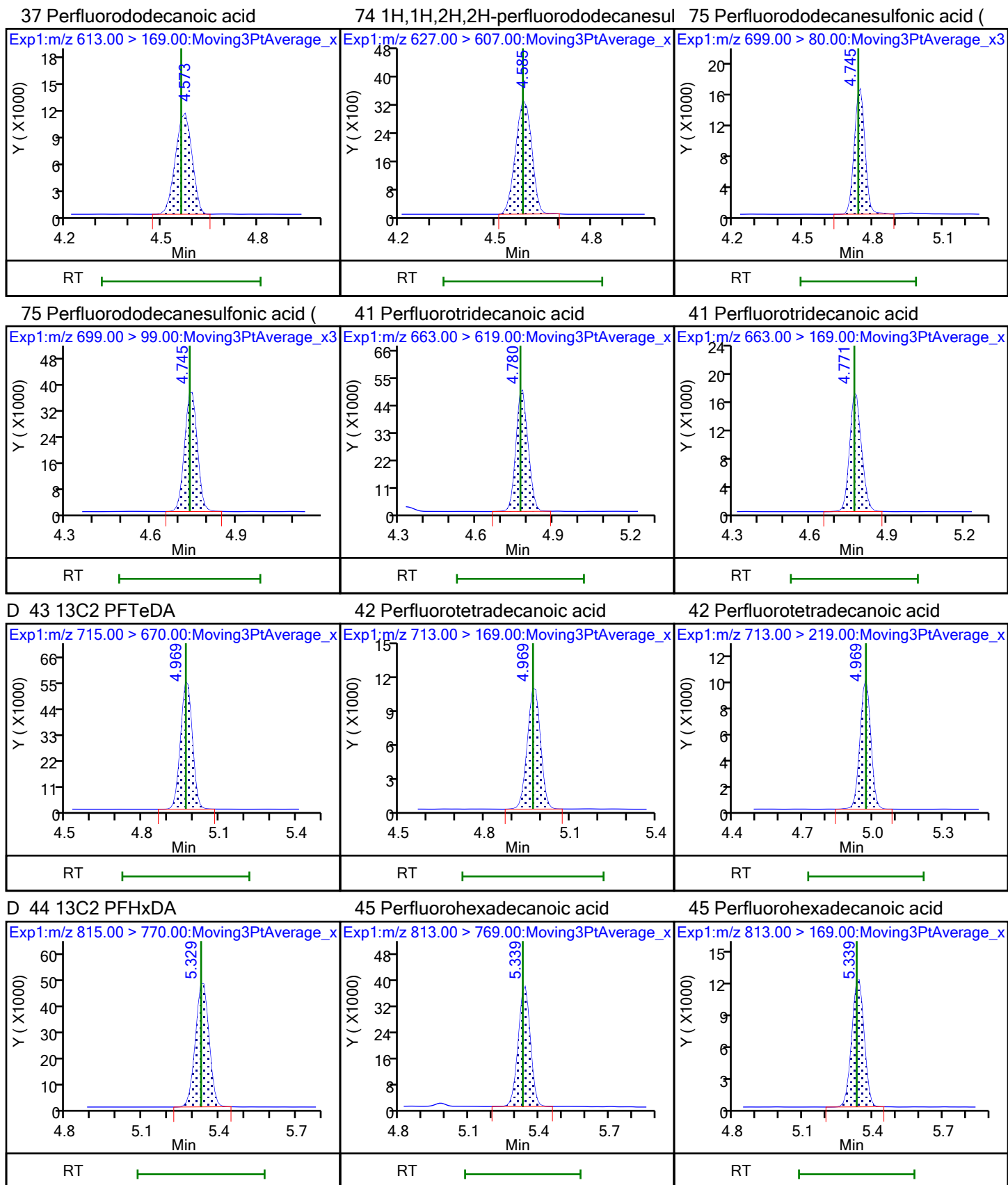


66 11-Chloroeicosafuoro-3-oxaundec

D 36 13C2 PFDaA

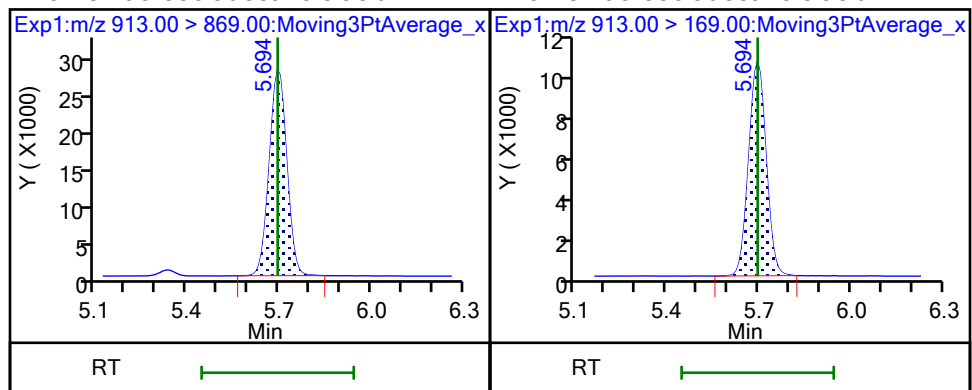
37 Perfluorododecanoic acid





46 Perfluorooctadecanoic acid

46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

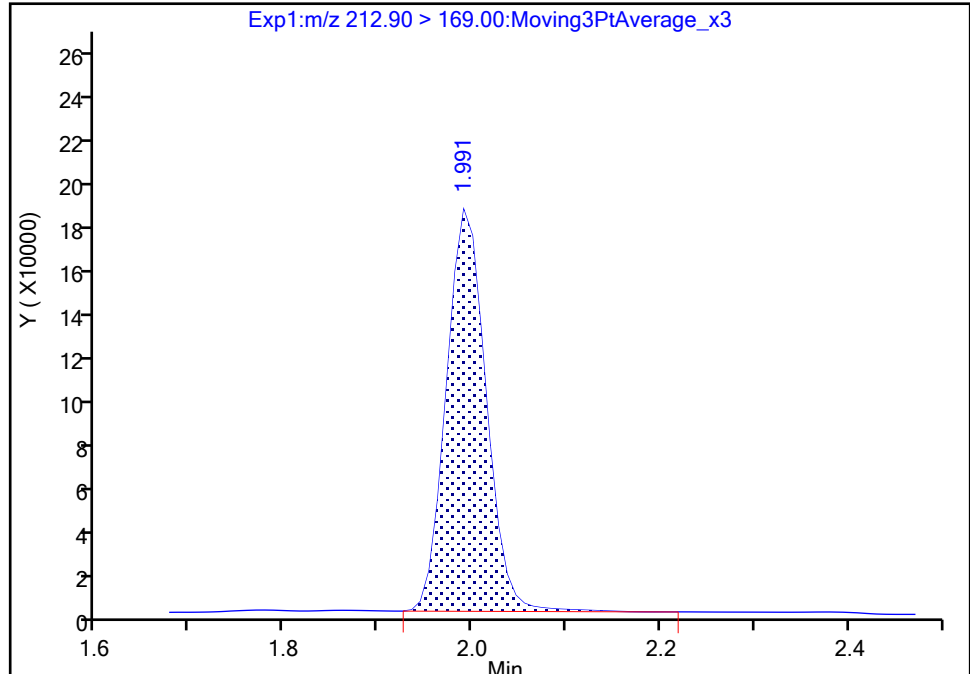
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Injection Date: 27-Oct-2020 21:13:21 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 31
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

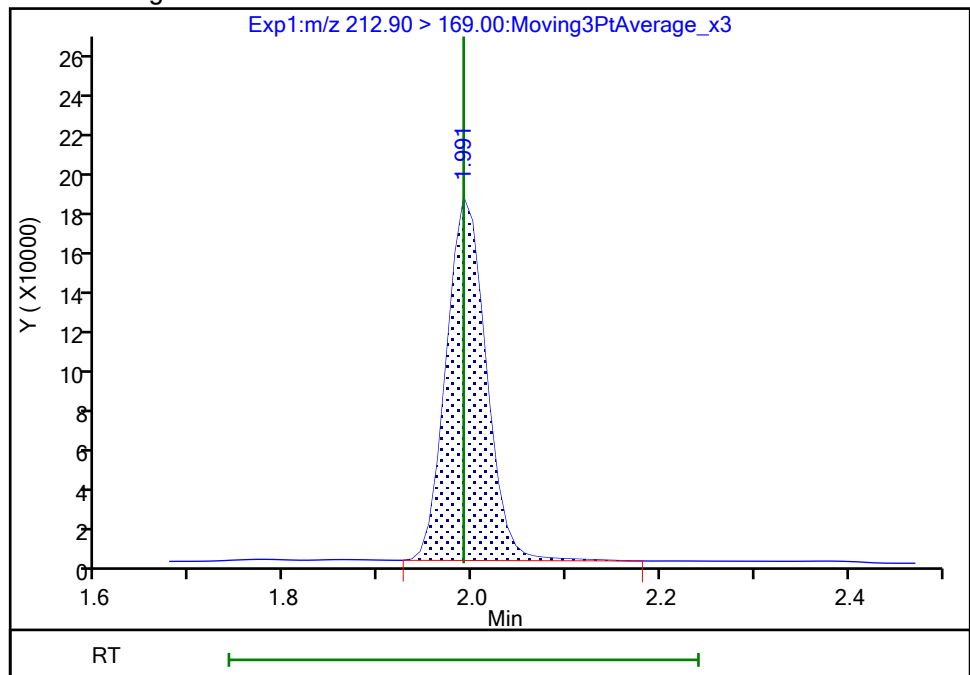
RT: 1.99
Area: 527753
Amount: 0.916006
Amount Units: ng/ml

Processing Integration Results



RT: 1.99
Area: 527698
Amount: 0.915910
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:33:20

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

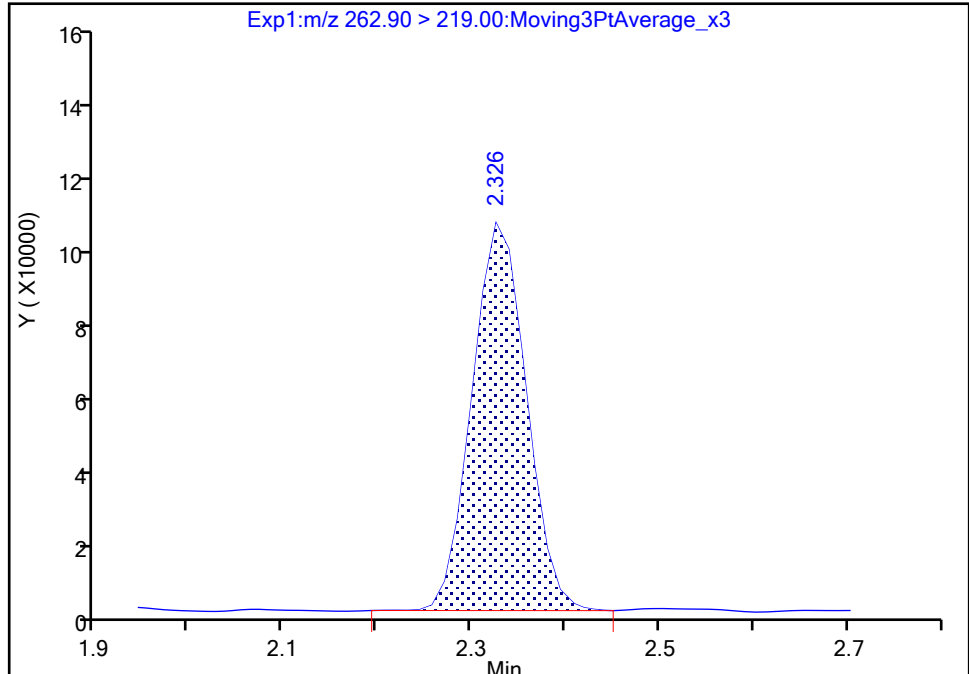
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Injection Date: 27-Oct-2020 21:13:21 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 31
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

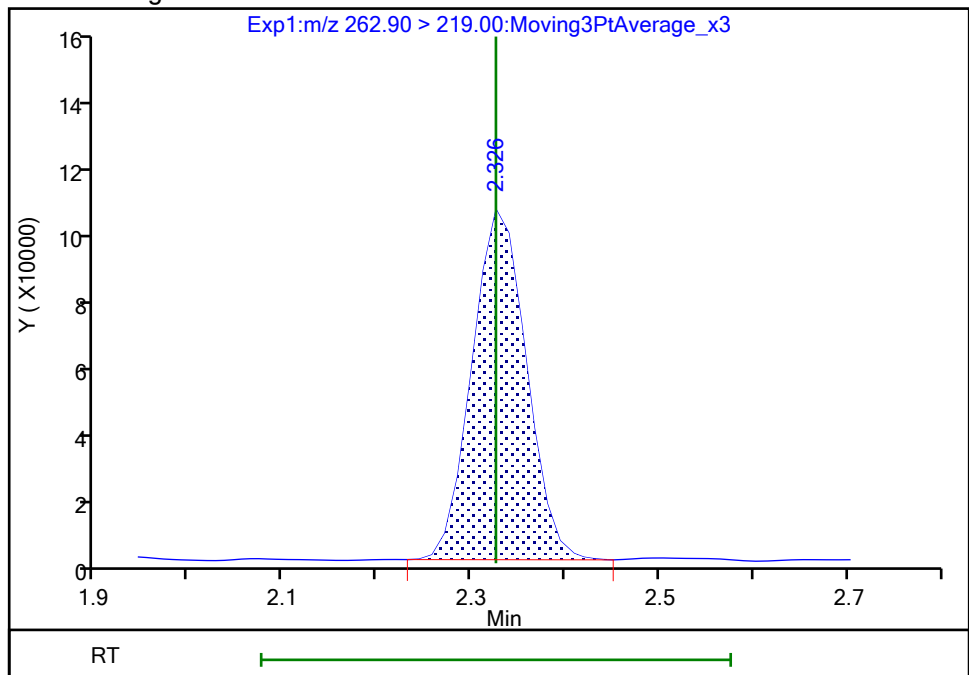
RT: 2.33
Area: 421558
Amount: 1.010482
Amount Units: ng/ml

Processing Integration Results



RT: 2.33
Area: 421080
Amount: 1.009336
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:33:31

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

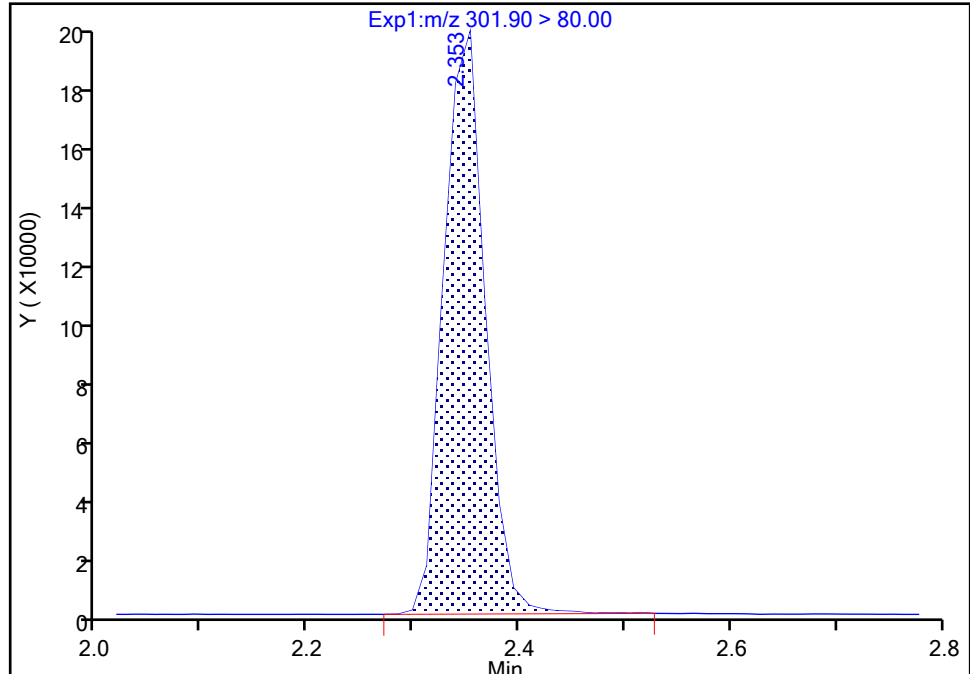
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Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 31
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

D 47 13C3 PFBS, CAS: STL02337

Signal: 1

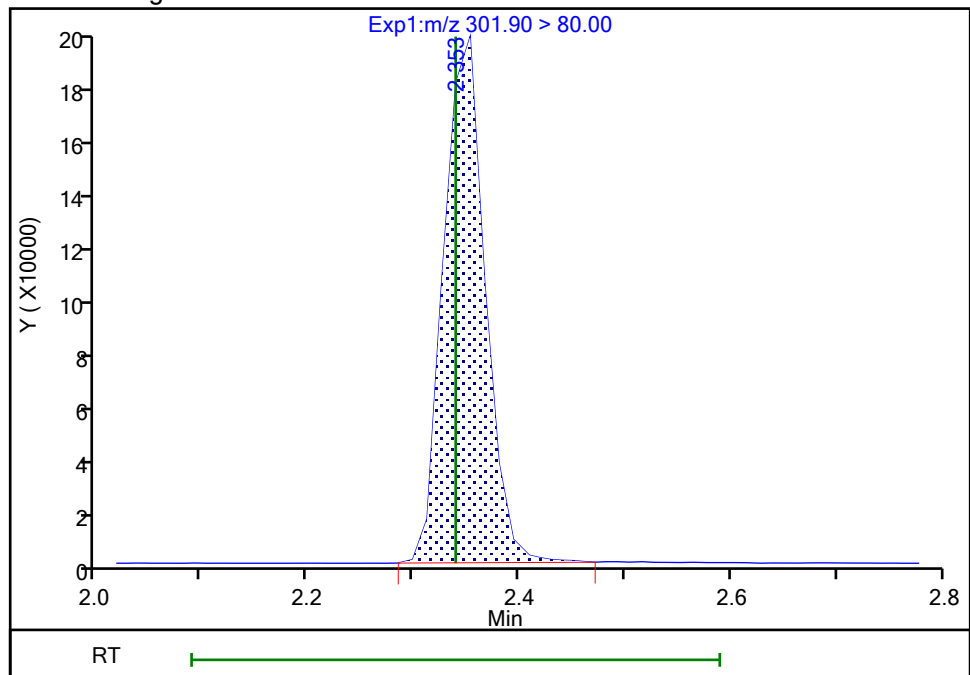
RT: 2.35
Area: 545938
Amount: 1.117220
Amount Units: ng/ml

Processing Integration Results



RT: 2.35
Area: 544234
Amount: 1.113733
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:33:03

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

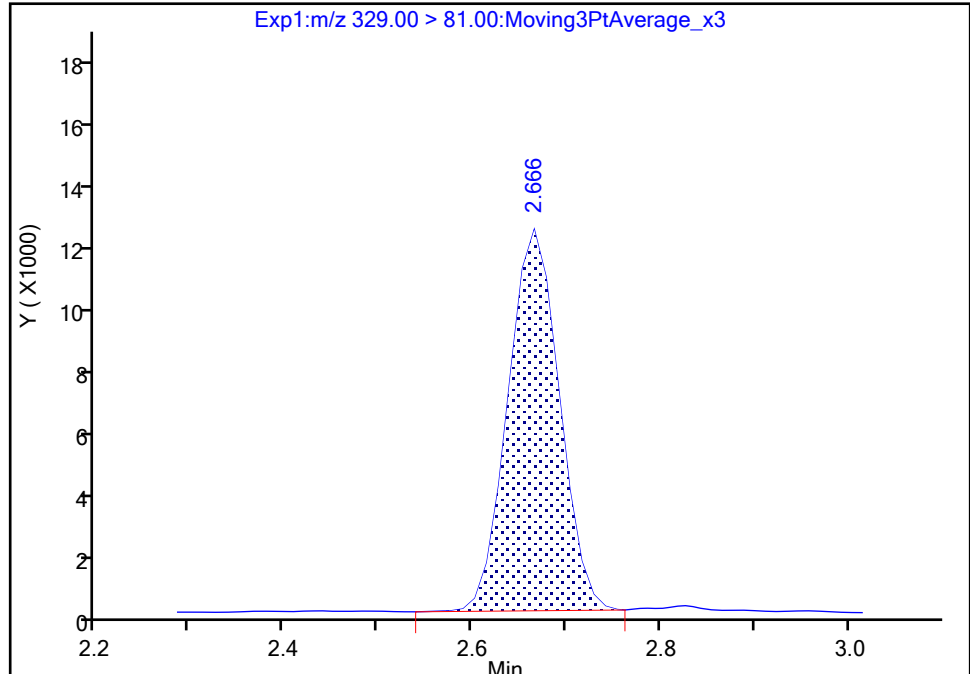
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Injection Date: 27-Oct-2020 21:13:21 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 31
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

D 60 M2-4:2 FTS, CAS: STL02395

Signal: 1

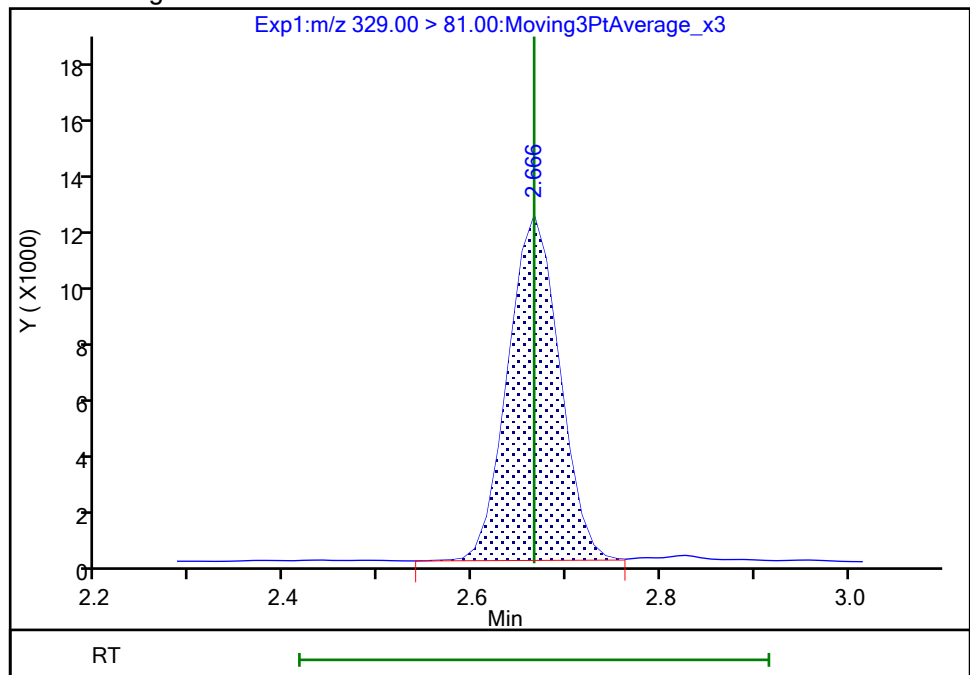
RT: 2.67
Area: 44741
Amount: 1.218924
Amount Units: ng/ml

Processing Integration Results



RT: 2.67
Area: 44915
Amount: 1.223665
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 09:13:34

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

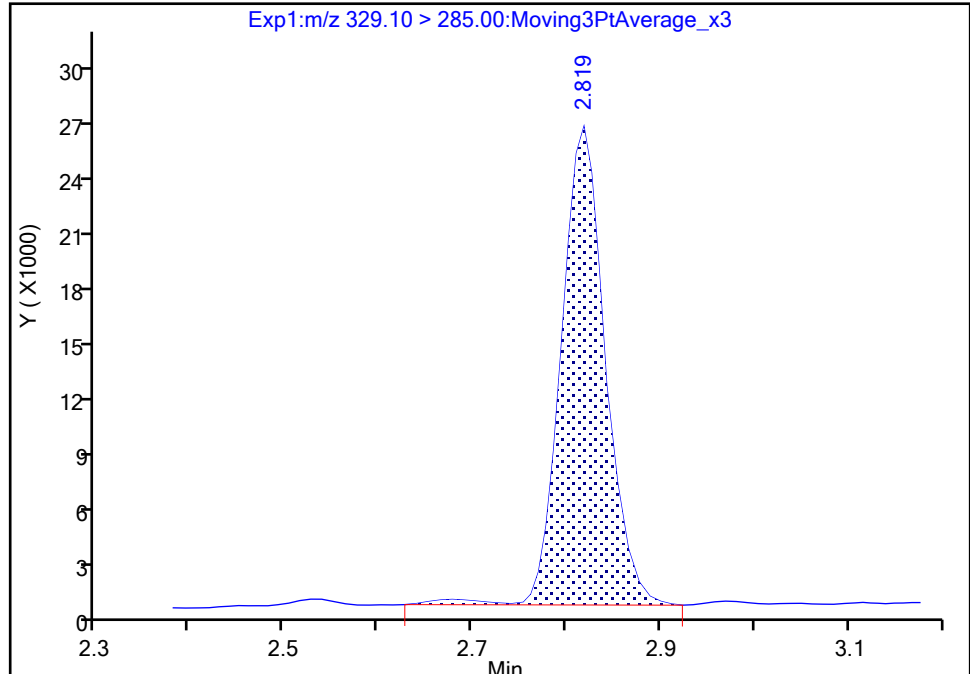
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Injection Date: 27-Oct-2020 21:13:21 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 31
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

67 Perfluoro(2-propoxypropanoic) ac, CAS: 13252-13-6

Signal: 1

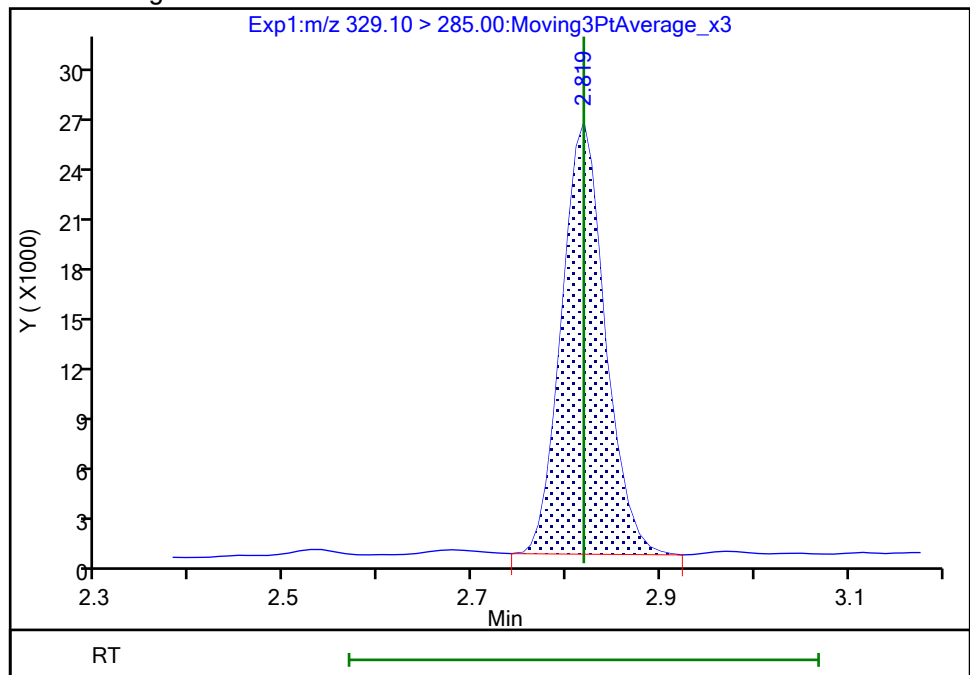
RT: 2.82
Area: 84388
Amount: 0.735569
Amount Units: ng/ml

Processing Integration Results



RT: 2.82
Area: 82966
Amount: 0.723174
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:33:57

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

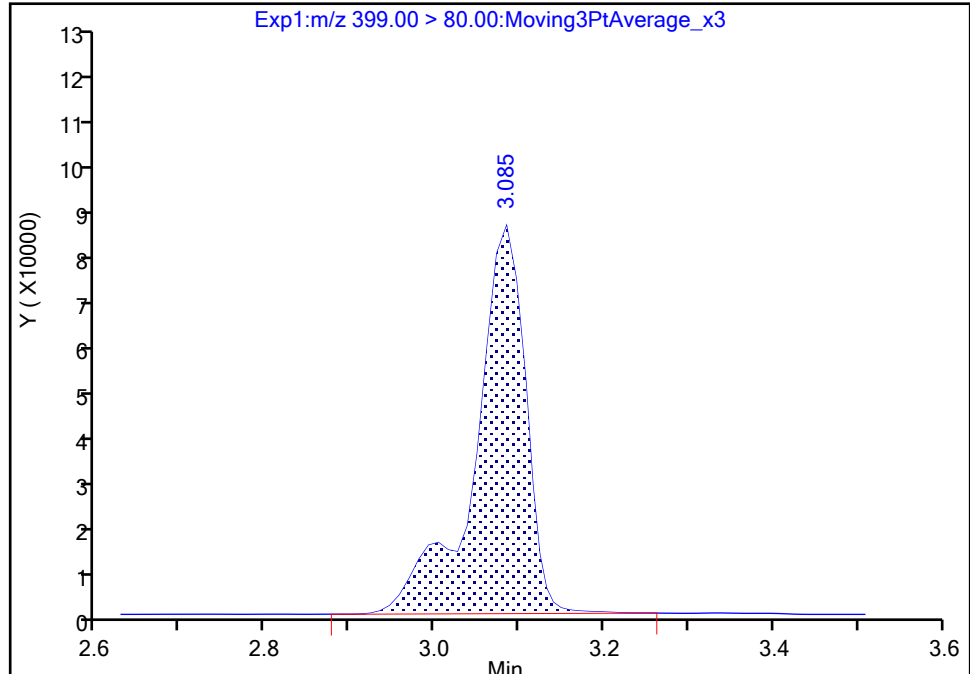
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A31.d
Injection Date: 27-Oct-2020 21:13:21 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 31
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

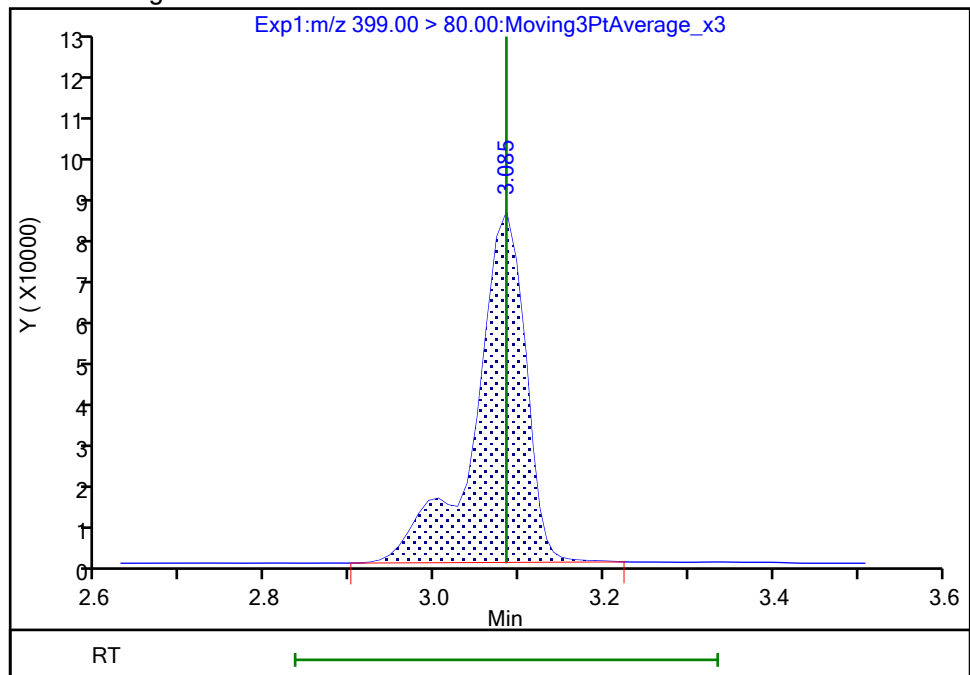
RT: 3.08
Area: 355715
Amount: 0.916935
Amount Units: ng/ml

Processing Integration Results



RT: 3.08
Area: 354936
Amount: 0.914927
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:34:06

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

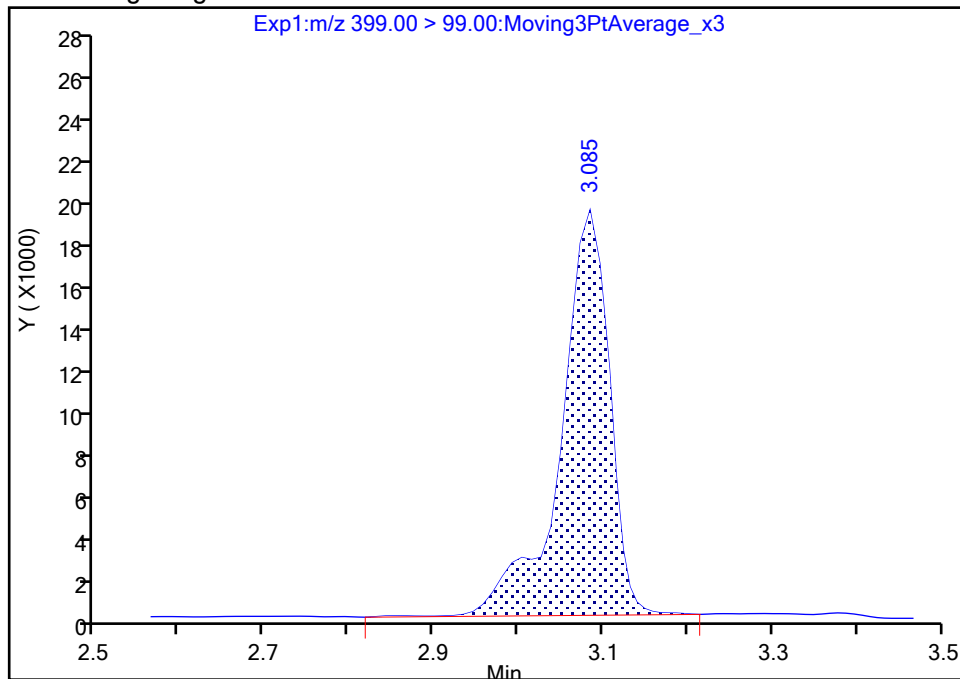
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A31.d
Injection Date: 27-Oct-2020 21:13:21 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 31
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

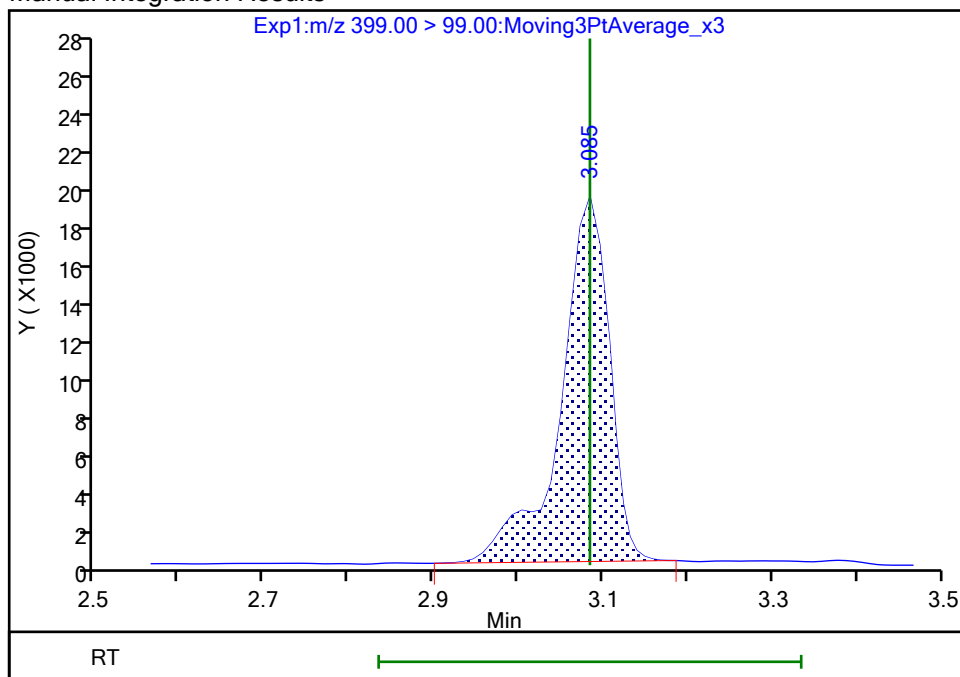
RT: 3.08
Area: 75840
Amount: 0.916935
Amount Units: ng/ml

Processing Integration Results



RT: 3.08
Area: 74901
Amount: 0.914927
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:34:11

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

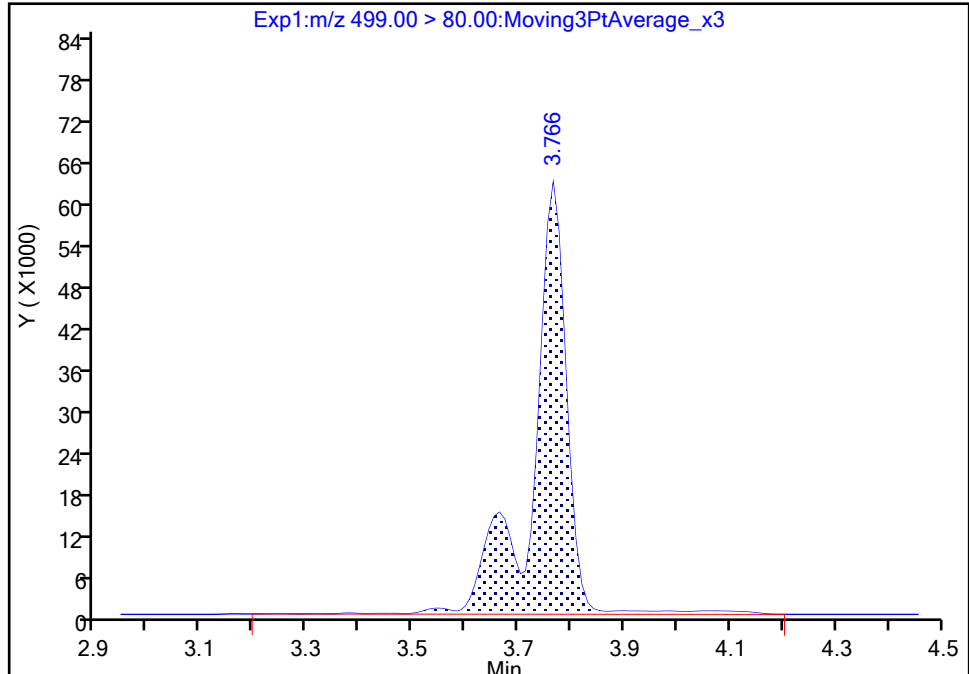
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A31.d
Injection Date: 27-Oct-2020 21:13:21 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 31
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

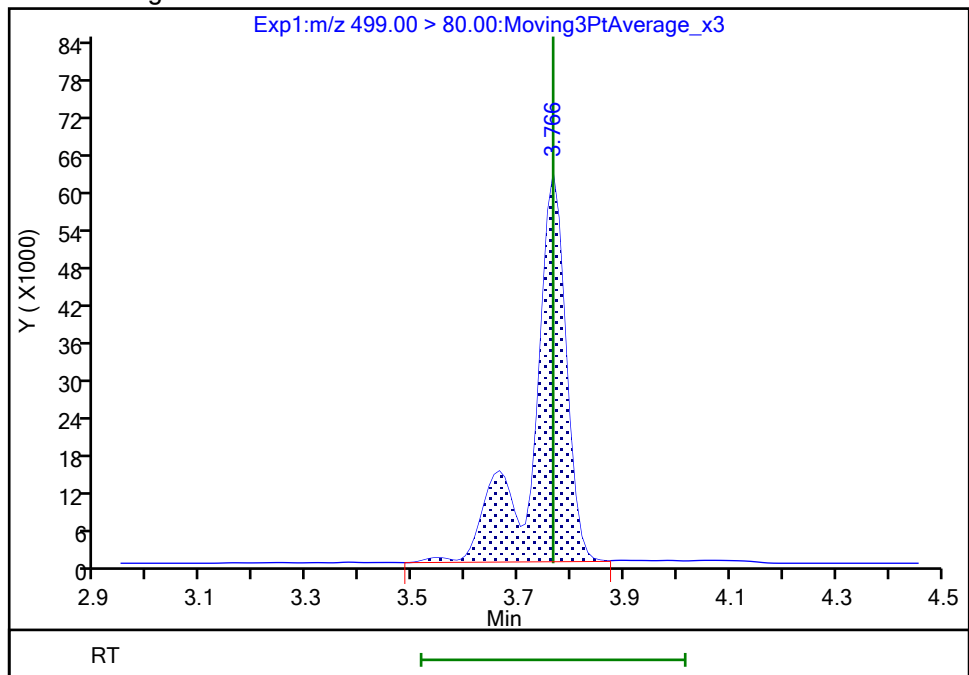
RT: 3.77
Area: 284831
Amount: 0.925853
Amount Units: ng/ml

Processing Integration Results



RT: 3.77
Area: 272966
Amount: 0.887285
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 09:14:21
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 735 of 906

Eurofins TestAmerica, Burlington

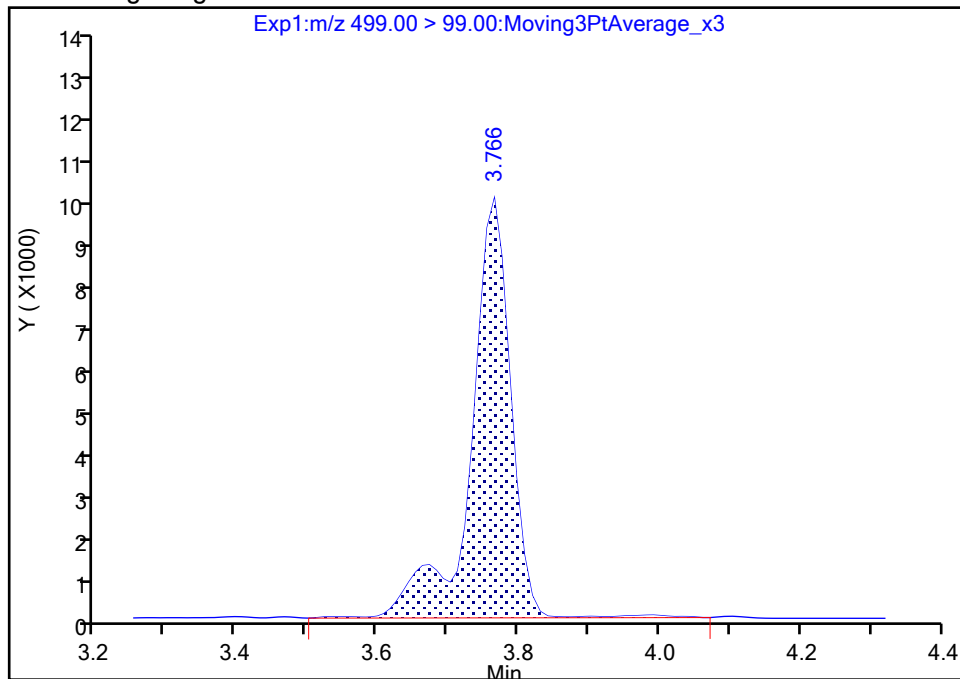
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A31.d
Injection Date: 27-Oct-2020 21:13:21 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 31
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

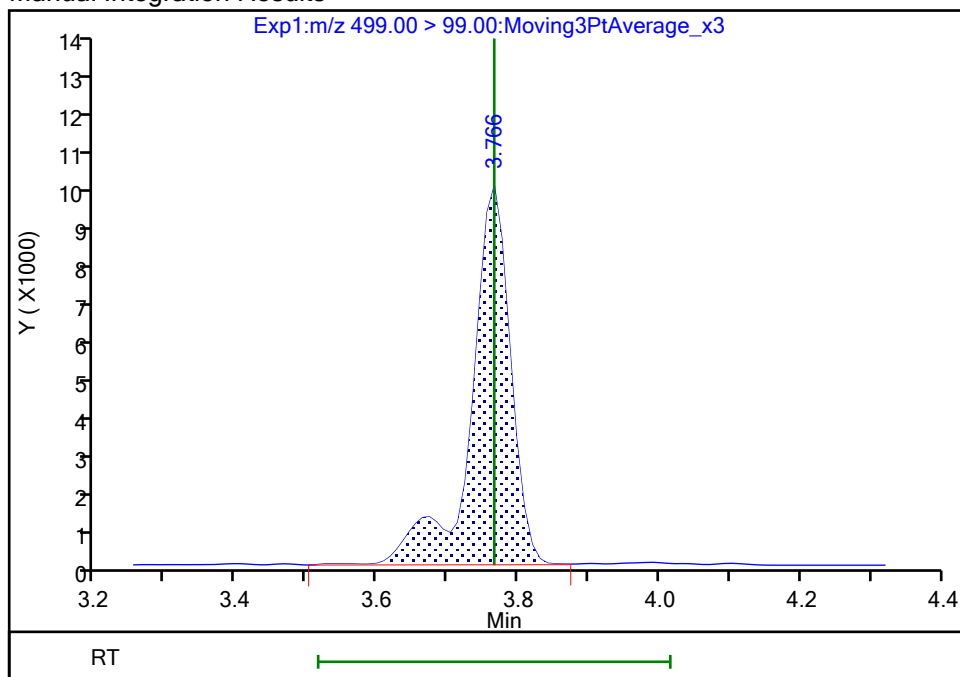
RT: 3.77
Area: 37740
Amount: 0.925853
Amount Units: ng/ml

Processing Integration Results



RT: 3.77
Area: 37407
Amount: 0.887285
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 09:14:24

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

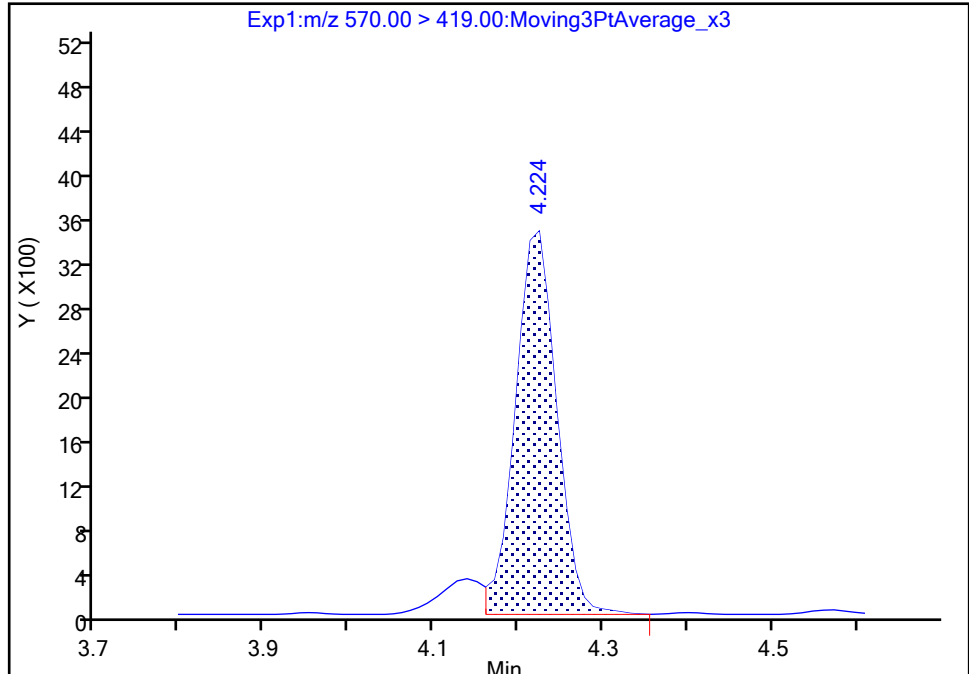
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A31.d
Injection Date: 27-Oct-2020 21:13:21 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 31
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

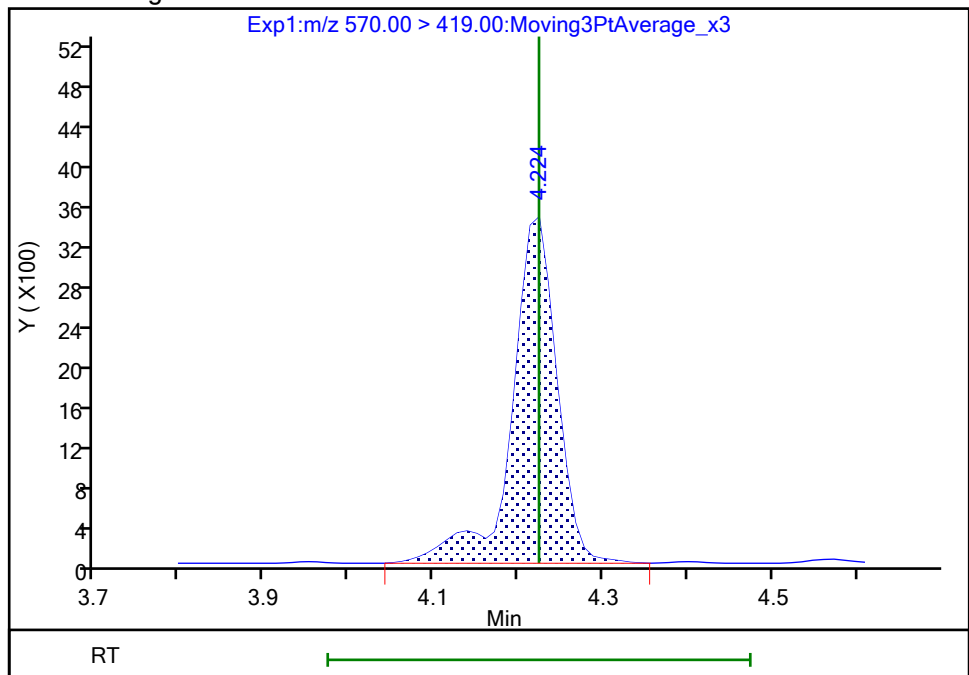
RT: 4.22
Area: 11709
Amount: 0.921080
Amount Units: ng/ml

Processing Integration Results



RT: 4.22
Area: 12845
Amount: 1.010442
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:35:00

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

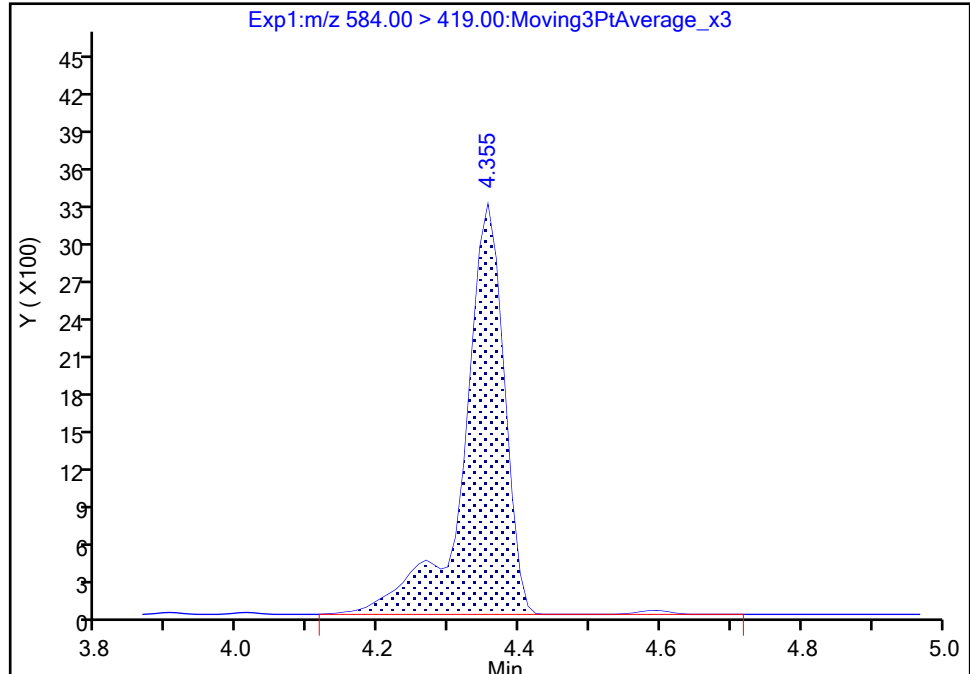
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A31.d
Injection Date: 27-Oct-2020 21:13:21 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 28 Worklist Smp#: 31
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

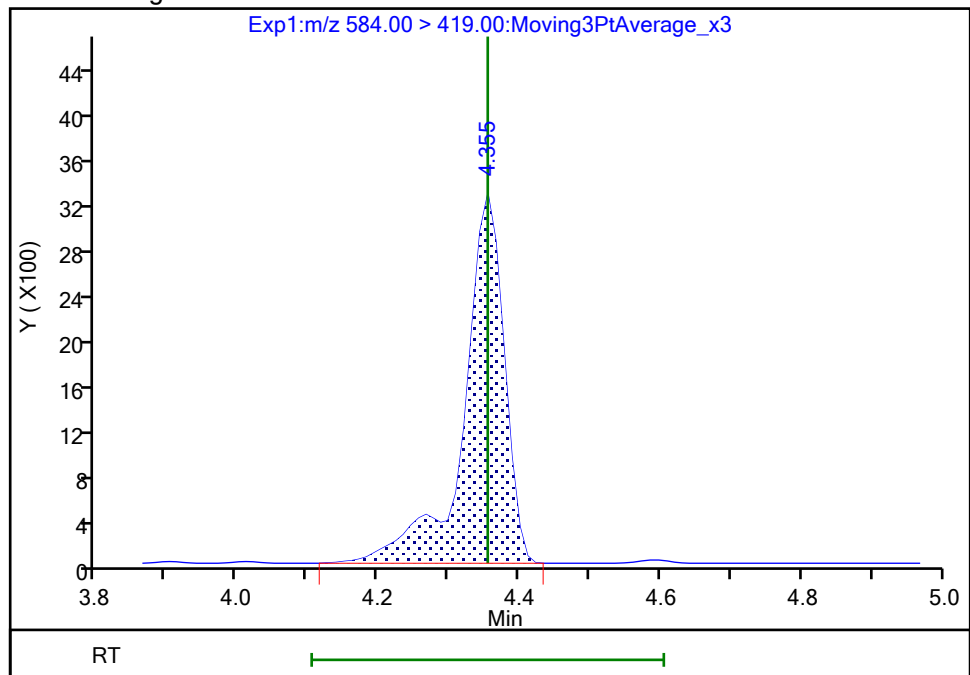
RT: 4.36
Area: 13049
Amount: 0.808040
Amount Units: ng/ml

Processing Integration Results



RT: 4.36
Area: 12963
Amount: 0.802715
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 10:35:09

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: MB 200-160391/1-A

Matrix: Water Lab File ID: PA201027A07.d

Analysis Method: 537 (modified) Date Collected: _____

Extraction Method: 3535 Date Extracted: 10/27/2020 09:15

Sample wt/vol: 250 (mL) Date Analyzed: 10/27/2020 17:38

Con. Extract Vol.: 10 (mL) Dilution Factor: 1

Injection Volume: 20 (uL) GC Column: C-18 ID: 4.6 (mm)

% Moisture: _____ GPC Cleanup: (Y/N) N

Analysis Batch No.: 160481 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	ND		5.0	1.1
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		2.0	1.1
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		2.0	0.83
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.46
335-67-1	Perfluorooctanoic acid (PFOA)	ND		2.0	0.98
375-95-1	Perfluorononanoic acid (PFNA)	ND		2.0	0.58
335-76-2	Perfluorodecanoic acid (PFDA)	ND		2.0	0.46
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.73
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		2.0	0.46
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		2.0	0.43
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.59
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.63
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.67
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.39
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.87
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.48
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.57
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0	0.79
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0	0.93
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		5.0	0.72
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		2.0	0.66

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 200-160391/1-A
 Matrix: Water Lab File ID: PA201027A07.d
 Analysis Method: 537 (modified) Date Collected: _____
 Extraction Method: 3535 Date Extracted: 10/27/2020 09:15
 Sample wt/vol: 250 (mL) Date Analyzed: 10/27/2020 17:38
 Con. Extract Vol.: 10 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: C-18 ID: 4.6 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 160481 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	100		50-150
STL01892	13C4 PFHpA	101		50-150
STL00990	13C4 PFOA	97		50-150
STL00991	13C4 PFOS	107		50-150
STL00995	13C5 PFNA	97		50-150
STL00992	13C4 PFBA	109		25-150
STL00993	13C2 PFHxA	105		50-150
STL00996	13C2 PFDA	92		50-150
STL00997	13C2 PFUnA	92		50-150
STL00998	13C2 PFDoA	83		50-150
STL01056	13C8 FOSA	69		25-150
STL01893	13C5 PFPeA	111		25-150
STL02116	13C2 PFTeDA	82		50-150
STL02118	d3-NMeFOSAA	84		50-150
STL02117	d5-NEtFOSAA	92		50-150
STL02279	M2-6:2 FTS	106		25-150
STL02280	M2-8:2 FTS	110		25-150
STL02337	13C3 PFBS	102		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d
 Lims ID: MB 200-160391/1-A
 Client ID:
 Sample Type: MB
 Inject. Date: 27-Oct-2020 17:38:45 ALS Bottle#: 4 Worklist Smp#: 7
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: MB 200-160391/1-A
 Misc. Info.: 200-0043412-007 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Method: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 28-Oct-2020 13:19:14 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1652

First Level Reviewer: khanphomeea

Date: 28-Oct-2020 07:50:59

Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.981	1.981	0.0	0.574	908536	1.37		109	13092	
2 Perfluorobutanoic acid										M
212.90 > 169.00	1.981	1.990	-0.009	1.000	7081	0.0104			2.3	M
D 3 13C5 PFPeA										
267.90 > 223.00	2.326	2.326	0.0	0.674	661165	1.39		111	4302	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.326	2.326	0.0	1.000	2637	0.004721			0.2	M
D 47 13C3 PFBS										M
301.90 > 80.00	2.339	2.339	0.0	0.678	688586	1.19		102	257795	M
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.339	2.353	-0.014	1.000	5669	0.009605	Target=2.07		29.7	
298.90 > 99.00	2.339	2.353	-0.014	1.000	2771		2.05(1.04-3.11)		5.5	
D 60 M2-4:2 FTS										M
329.00 > 81.00	2.665	2.665	0.0	0.773	53183	1.22		105	122	M
61 1H,1H,2H,2H-perfluorohexanesulfo										M
327.00 > 307.00	2.653	2.665	-0.012	0.995	128	0.001739			3.3	M
D 7 13C2 PFHxA										
315.00 > 270.00	2.703	2.703	0.0	0.784	640817	1.31		105	3083	
6 Perfluorohexanoic acid										M
313.00 > 269.00	2.703	2.703	0.0	1.000	1689	0.003272	Target=12.44		1.1	M
313.00 > 119.00	2.703	2.703	0.0	1.000	267		6.33(6.22-18.66)		1.0	M
70 Perfluoropentanesulfonic acid										M
349.00 > 80.00	2.703	2.703	0.0	0.876	708	0.001440	Target=3.64		5.4	M
349.00 > 99.00	2.678	2.703	-0.025	0.868	143		4.95(1.82-5.46)		1.0	M
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.810	2.810	0.0	0.815	90407	1.98		158	2001	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 11 18O2 PFHxS										
403.00 > 84.00	3.084	3.084	0.0	0.894	490996	1.18		99.8	1911	
8 Perfluorohexanesulfonic acid										RM
399.00 > 80.00	3.084	3.084	0.0	1.000	2840	0.006193	Target=4.60		12.0	RM
399.00 > 99.00	3.084	3.084	0.0	1.000	1612		1.76(2.30-6.91)		2.9	M
D 9 13C4 PFHpA										
367.00 > 322.00	3.084	3.084	0.0	0.894	560623	1.26		101	4310	
10 Perfluoroheptanoic acid										RM
363.00 > 319.00	3.096	3.084	0.012	1.004	2399	0.005338	Target=3.34		1.3	RM
363.00 > 169.00	3.073	3.084	-0.011	0.996	388		6.18(1.67-5.01)		1.5	M
77 DONA										M
377.00 > 251.00	3.123	3.124	-0.001	0.830	1389	0.001239	Target=2.44		5.6	M
377.00 > 85.00	3.123	3.124	-0.001	0.830	941		1.48(1.22-3.67)		3.7	M
D 12 M2-6:2 FTS										
429.00 > 81.00	3.441	3.441	0.0	0.997	69938	1.26		106	395	
13 1H,1H,2H,2H-perfluorooctanesulfo										M
427.00 > 407.00	3.441	3.441	0.0	1.000	78	0.001659			1.6	M
D 14 13C4 PFOA										
417.00 > 372.00	3.450	3.450	0.0	1.000	555979	1.22		97.5	5343	
* 62 13C2 PFOA										
415.00 > 370.00	3.450	3.450	0.0		579516	1.25			3323	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.450	3.458	-0.008	1.000	2779	0.006052	Target=2.29		2.1	M
413.00 > 169.00	3.458	3.458	0.0	1.003	1192		2.33(1.14-3.43)		5.3	M
D 18 13C4 PFOS										
503.00 > 80.00	3.765	3.765	0.0	1.091	434946	1.28		107	2234	
17 Perfluorooctanesulfonic acid										RM
499.00 > 80.00	3.765	3.765	0.0	1.000	1179	0.002981	Target=7.10		1.5	RM
499.00 > 99.00	3.755	3.765	-0.010	0.997	643		1.83(3.55-10.64)		2.7	M
D 19 13C5 PFNA										
468.00 > 423.00	3.786	3.786	0.0	1.098	465297	1.21		96.8	3752	
20 Perfluorononanoic acid										M
463.00 > 419.00	3.776	3.786	-0.010	0.997	1548	0.004084	Target=5.83		0.5	M
463.00 > 169.00	3.765	3.786	-0.021	0.994	312		4.96(2.91-8.74)		5.3	M
69 9-Chlorohexadecafluoro-3-oxanona										M
531.00 > 351.00	3.922	3.922	0.0	1.042	559	0.001606			8.0	M
68 Perfluorononanesulfonic acid										M
549.00 > 80.00	4.051	4.052	-0.001	1.076	567	0.001814	Target=3.38		3.9	M
549.00 > 99.00	4.041	4.052	-0.011	1.073	157		3.61(1.69-5.08)		1.6	M
D 23 13C2 PFDA										
515.00 > 470.00	4.082	4.082	0.0	1.183	422009	1.14		91.5	4679	
24 Perfluorodecanoic acid										RM
513.00 > 469.00	4.082	4.082	0.0	1.000	754	0.002257	Target=6.81		1.8	RM
513.00 > 169.00	4.082	4.082	0.0	1.000	230		3.28(3.41-10.22)		5.3	M
D 26 M2-8:2 FTS										
529.00 > 81.00	4.092	4.092	0.0	1.186	86230	1.32		110	280	
25 1H,1H,2H,2H-perfluorodecanesulfo										M
527.00 > 507.00	4.082	4.092	-0.010	0.998	79742	0.002772				M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 21 13C8 FOSA										
506.00 > 78.00	4.139	4.139	0.0	1.200	512006	0.8614		68.9	2742	
22 Perfluorooctanesulfonamide										M
498.00 > 78.00	4.150	4.139	0.011	1.003	1073	0.002802			7.1	M
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.224	4.214	0.010	1.224	21937	1.04		83.6	592	
28 N-methylperfluorooctanesulfonami										M
570.00 > 419.00	4.235	4.224	0.011	1.002	118	0.007125			5.0	M
29 Perfluorodecanesulfonic acid										RM
599.00 > 80.00	4.321	4.309	0.012	1.147	408	0.001560	Target=3.31		3.4	RM
599.00 > 99.00	4.309	4.309	0.0	1.144	312		1.31(1.66-4.97)		2.2	M
D 30 13C2 PFUnA										
565.00 > 520.00	4.343	4.343	0.0	1.259	321415	1.15		92.3	4306	
31 Perfluoroundecanoic acid										M
563.00 > 519.00	4.332	4.343	-0.011	0.997	516	0.002035	Target=6.57		0.8	M
563.00 > 169.00	4.321	4.343	-0.022	0.995	155		3.33(3.28-9.85)		3.4	M
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.355	4.343	0.012	1.262	26041	1.15		92.3	692	
33 N-ethylperfluorooctanesulfonamid										M
584.00 > 419.00	4.366	4.355	0.011	1.003	194	0.0102			1.8	M
66 11-Chloroeicosafuoro-3-oxaundec										M
631.00 > 451.00	4.444	4.422	0.022	1.180	482	0.001605			13.9	M
D 36 13C2 PFDaA										
615.00 > 570.00	4.573	4.561	0.012	1.326	304667	1.04		82.8	3209	
74 1H,1H,2H,2H-perfluorododecanesul										M
627.00 > 607.00	4.573	4.585	-0.012	1.118	37	0.002336			1.9	M
75 Perfluorododecanesulfonic acid (										RM
699.00 > 80.00	4.727	4.736	-0.009	1.255	347	0.004135	Target=0.45		2.7	RM
699.00 > 99.00	4.745	4.736	0.009	1.260	267		1.30(0.22-0.67)		1.7	M
41 Perfluorotridecanoic acid										M
663.00 > 619.00	4.781	4.772	0.009	1.045	602	0.002982	Target=3.30		0.9	M
663.00 > 169.00	4.763	4.772	-0.009	1.042	204		2.95(1.65-4.95)		6.8	M
D 43 13C2 PFTeDA										
715.00 > 670.00	4.969	4.969	0.0	1.440	214545	1.02		81.9	3447	
42 Perfluorotetradecanoic acid										M
713.00 > 169.00	4.997	4.969	0.028	1.006	139	0.003536	Target=1.06		3.1	M
713.00 > 219.00	4.969	4.969	0.0	1.000	221		0.63(0.53-1.59)		15.8	M
D 44 13C2 PFHxDA										
815.00 > 770.00	5.339	5.329	0.010	1.548	225304	0.9483		75.9	3288	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.339	5.329	0.010	1.000	2642	-0.006555	Target=3.06		3.1	
813.00 > 169.00	5.339	5.329	0.010	1.000	1017		2.60(1.53-4.58)		43.7	
46 Perfluorooctadecanoic acid										M
913.00 > 869.00	5.694	5.694	0.0	1.066	391	0.002903	Target=2.82		1.3	M
913.00 > 169.00	5.676	5.694	-0.018	1.063	111		3.52(1.41-4.24)		6.6	M

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d

Injection Date: 27-Oct-2020 17:38:45

Instrument ID: LC812

Lims ID: MB 200-160391/1-A

Client ID:

Operator ID: lc812tech

ALS Bottle#: 4

Worklist Smp#: 7

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

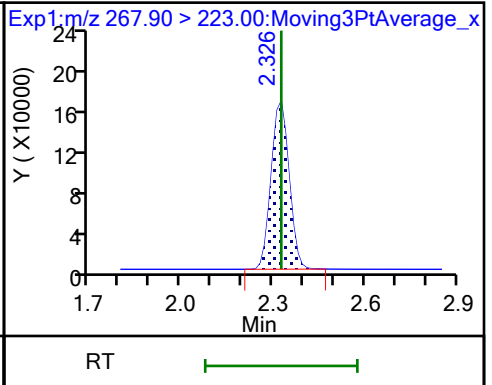
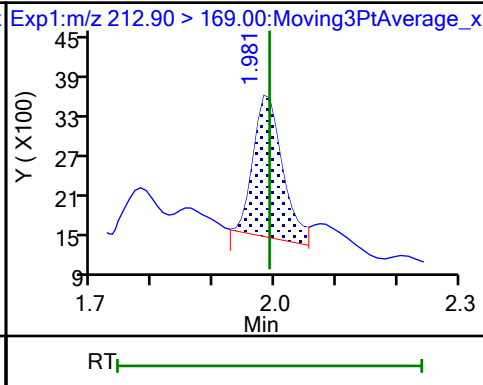
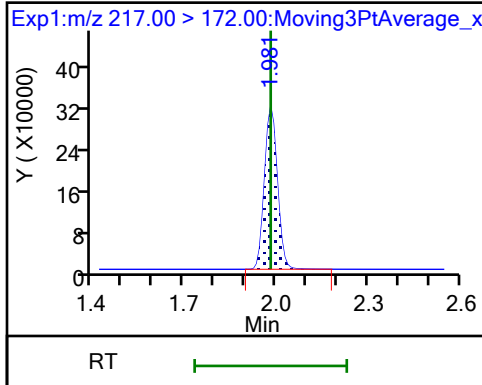
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid (M)

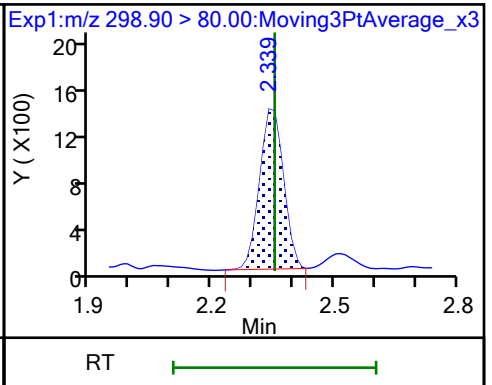
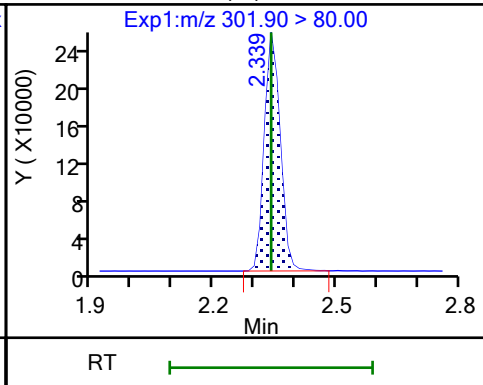
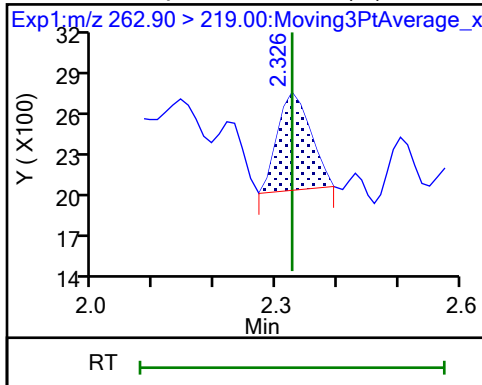
D 3 13C5 PFPeA



4 Perfluoropentanoic acid (M)

D 47 13C3 PFBS (M)

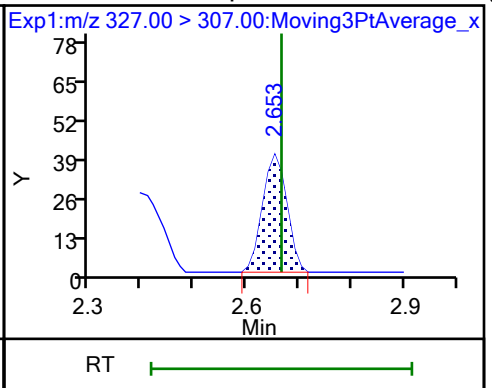
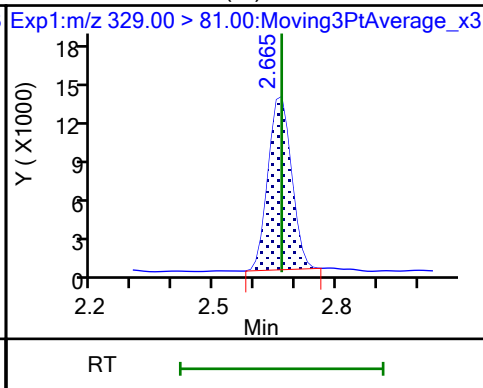
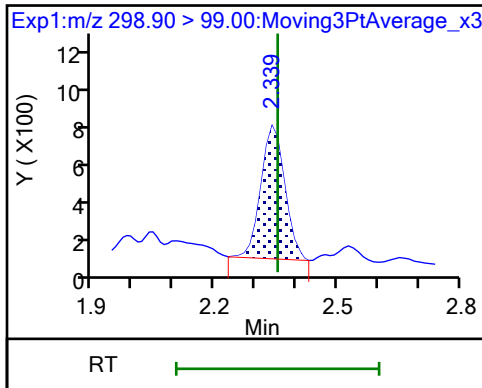
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

D 60 M2-4:2 FTS (M)

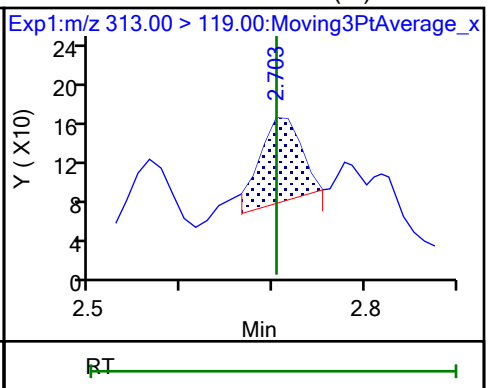
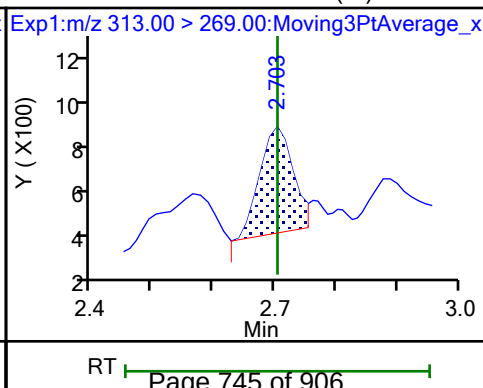
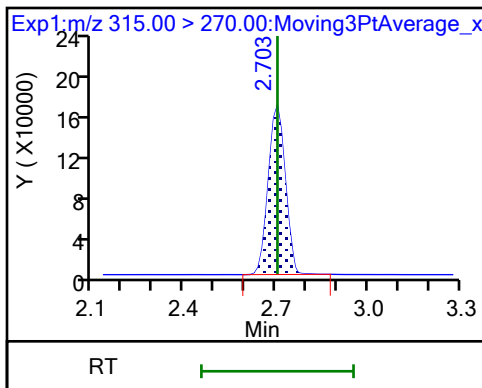
61 1H,1H,2H,2H-perfluorohexanesulfo (M)



D 7 13C2 PFHxA

6 Perfluorohexanoic acid (M)

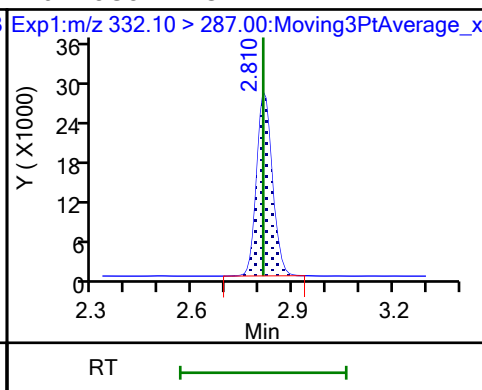
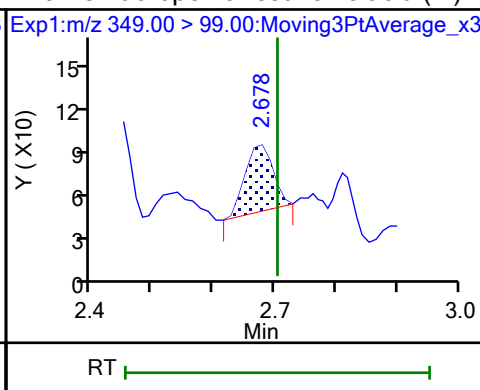
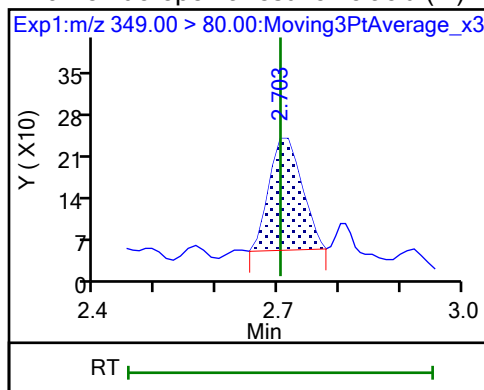
6 Perfluorohexanoic acid (M)



70 Perfluoropentanesulfonic acid (M)

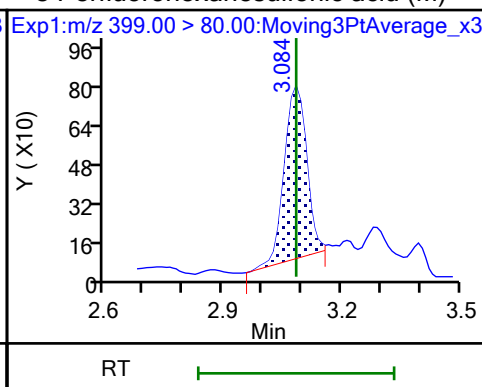
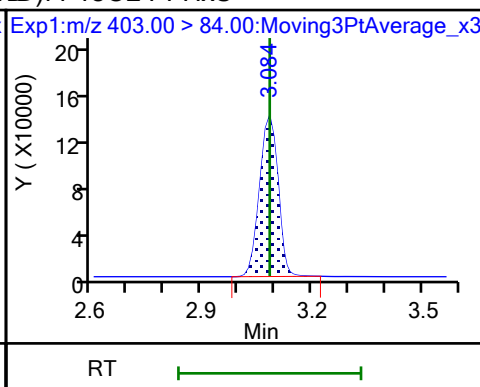
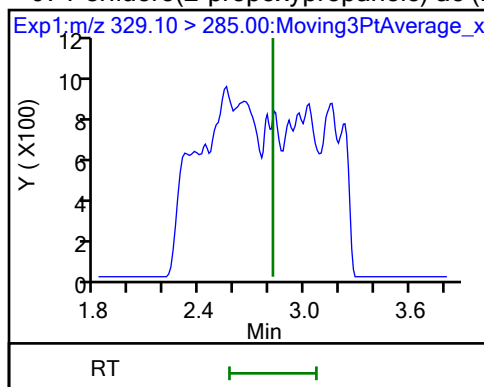
70 Perfluoropentanesulfonic acid (M)

D 64 13C3 HFPO-DA



67 Perfluoro(2-propoxypropanoic) ac (ND)11 18O2 PFHxS

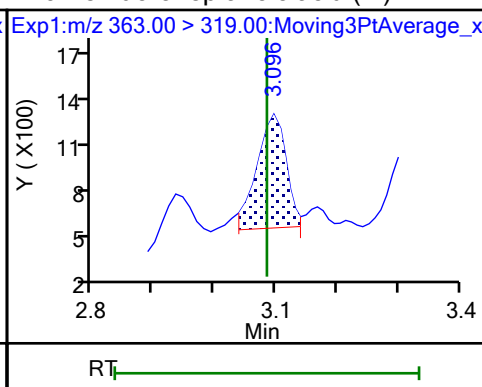
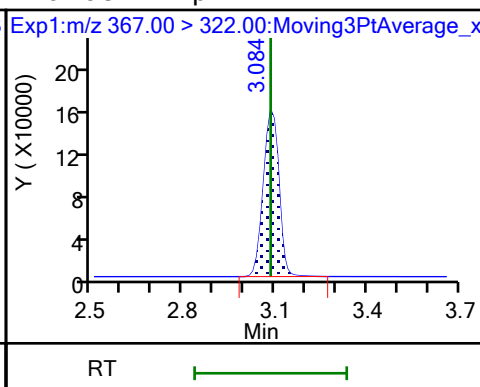
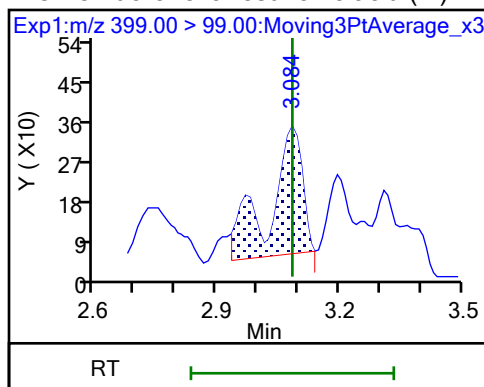
8 Perfluorohexanesulfonic acid (M)



8 Perfluorohexanesulfonic acid (M)

D 9 13C4 PFHpA

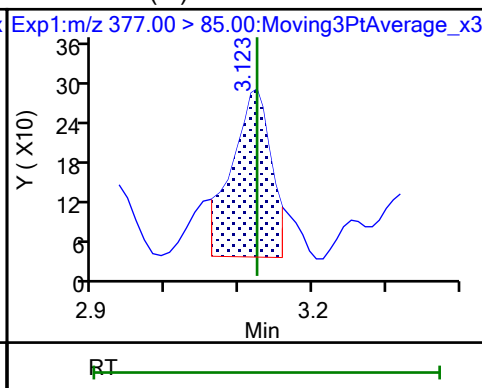
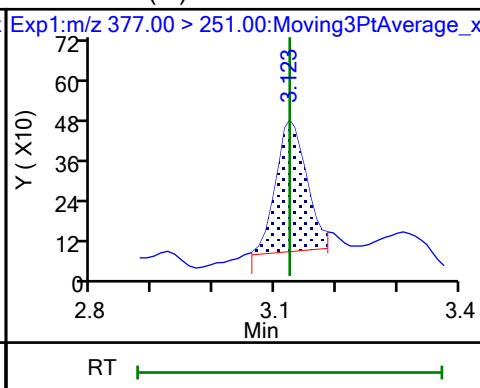
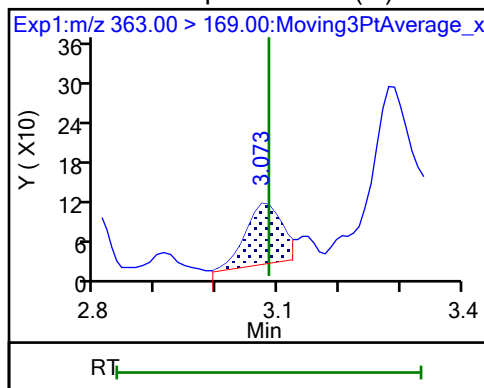
10 Perfluoroheptanoic acid (M)



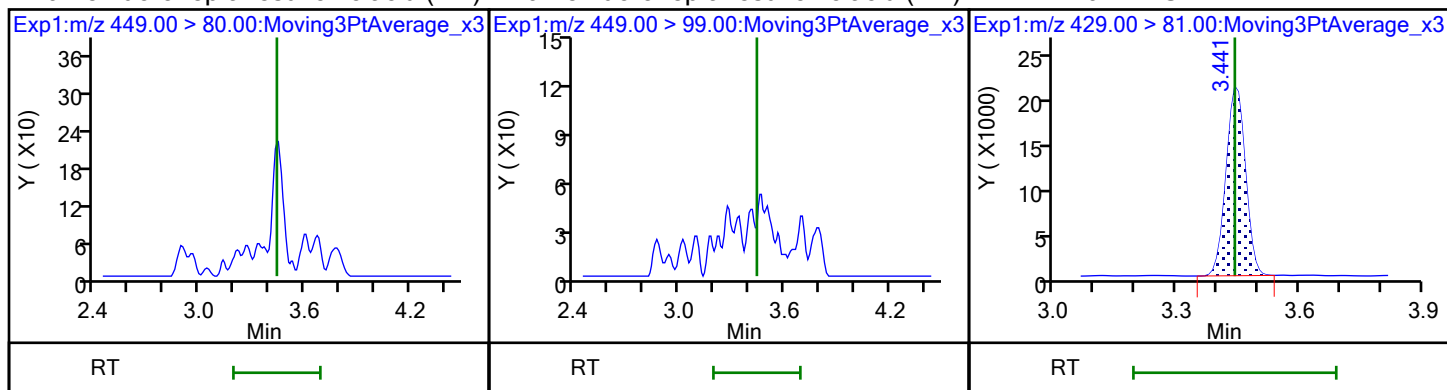
10 Perfluoroheptanoic acid (M)

77 DONA (M)

77 DONA (M)

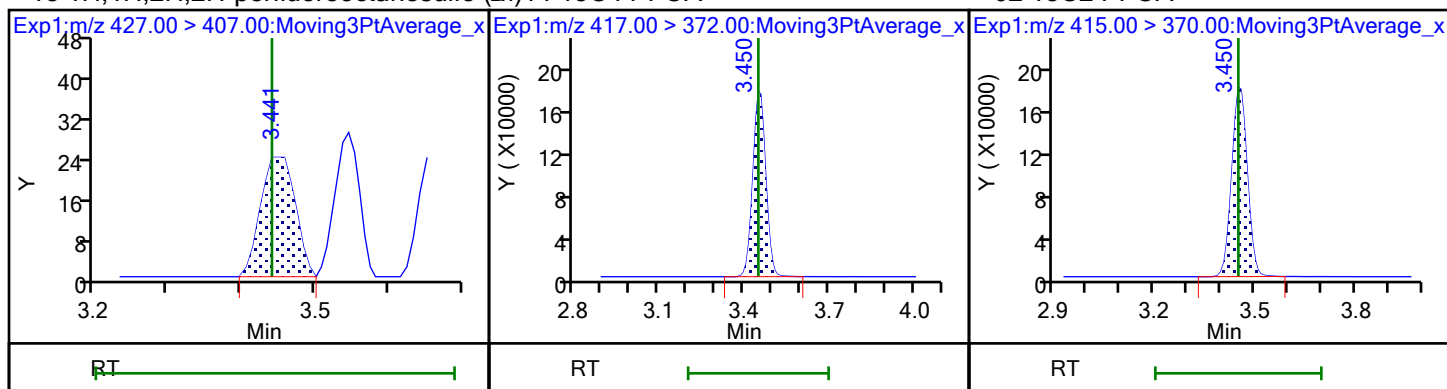


16 Perfluoroheptanesulfonic acid (ND) 16 Perfluoroheptanesulfonic acid (ND) D 12 M2-6:2 FTS



13 1H,1H,2H,2H-perfluorooctanesulfo (M) 14 13C4 PFOA

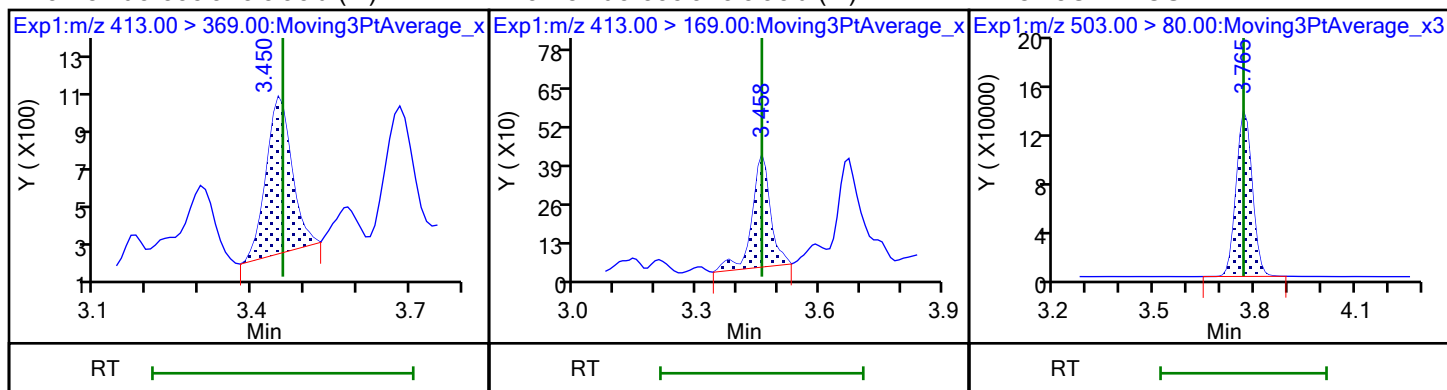
* 62 13C2 PFOA



15 Perfluorooctanoic acid (M)

15 Perfluorooctanoic acid (M)

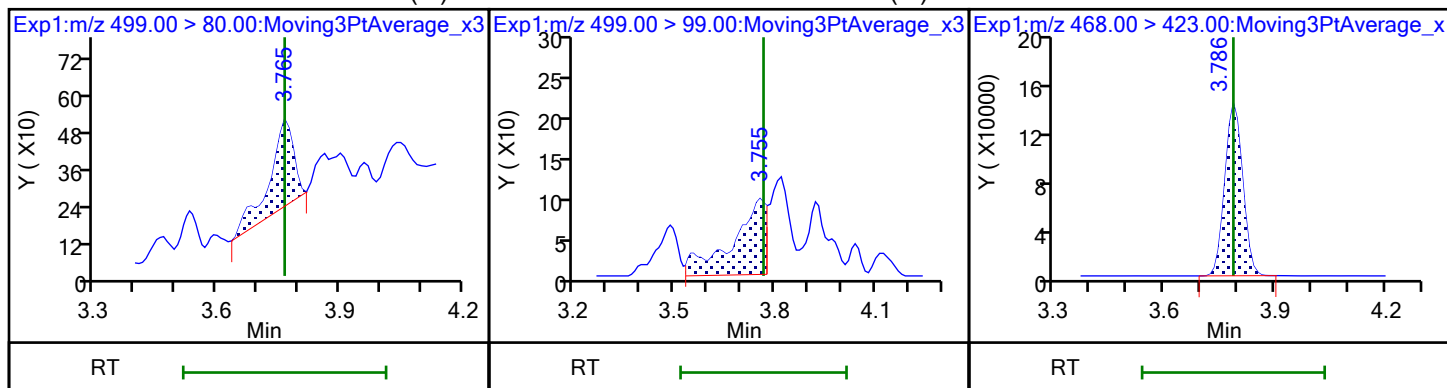
D 18 13C4 PFOS

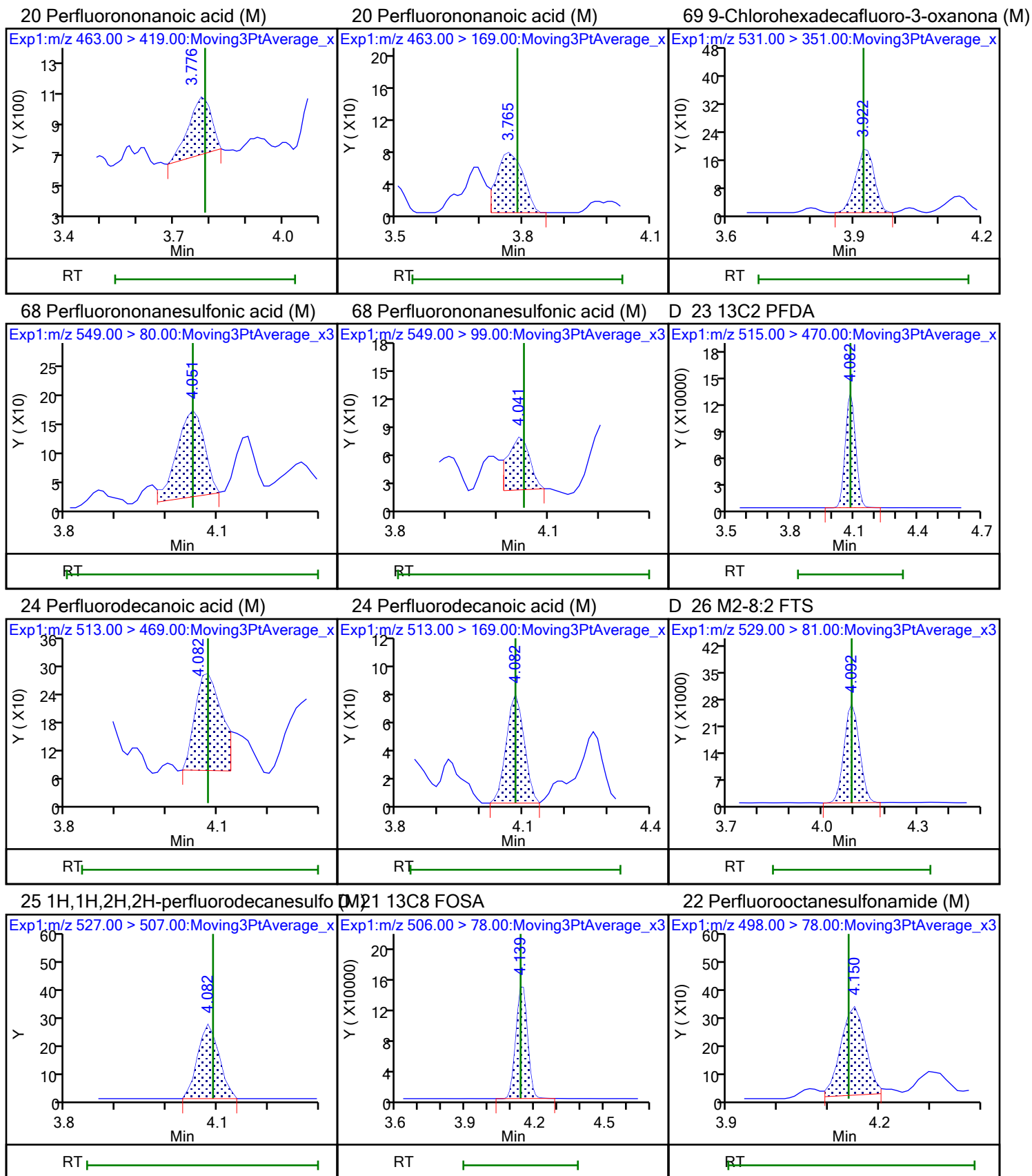


17 Perfluorooctanesulfonic acid (M)

17 Perfluorooctanesulfonic acid (M)

D 19 13C5 PFNA

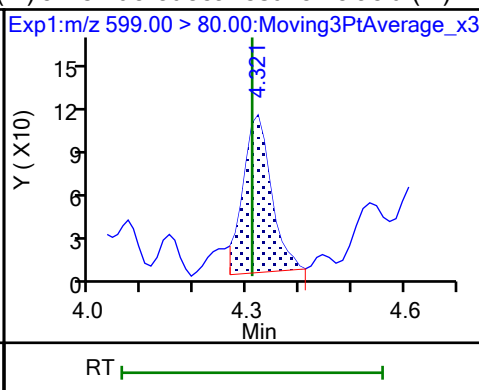
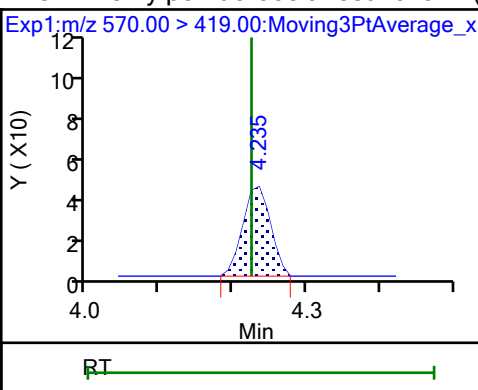
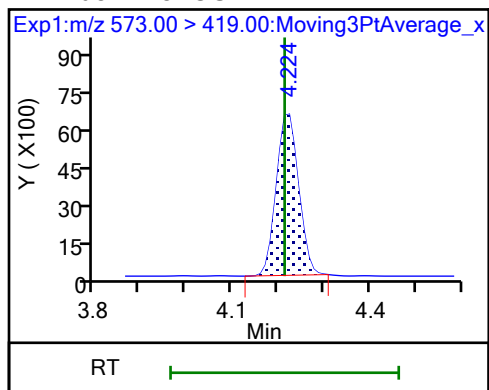




D 27 d3-NMeFOSAA

28 N-methylperfluorooctanesulfonami (M)

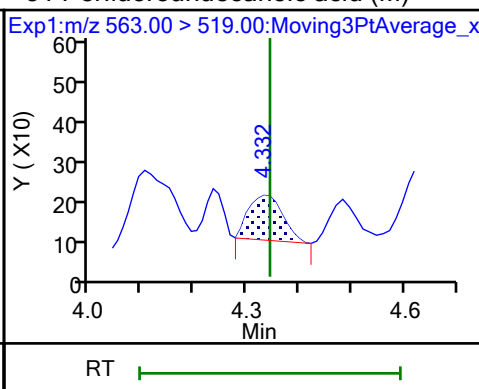
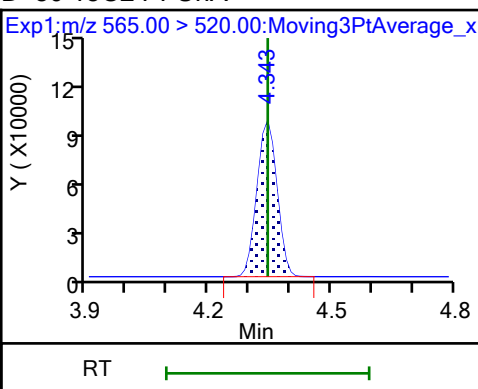
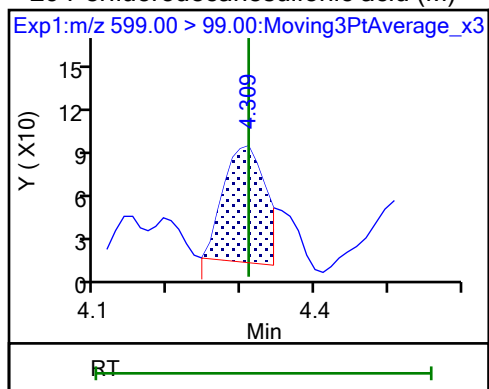
29 Perfluorodecanesulfonic acid (M)



29 Perfluorodecanesulfonic acid (M)

D 30 13C2 PFUaA

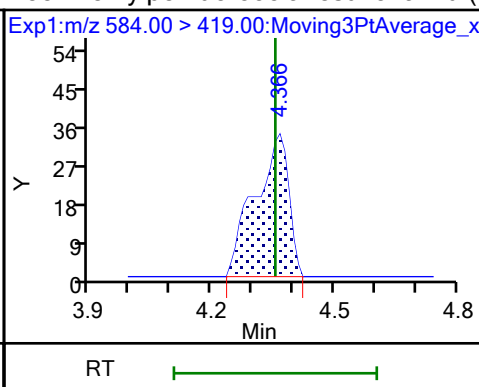
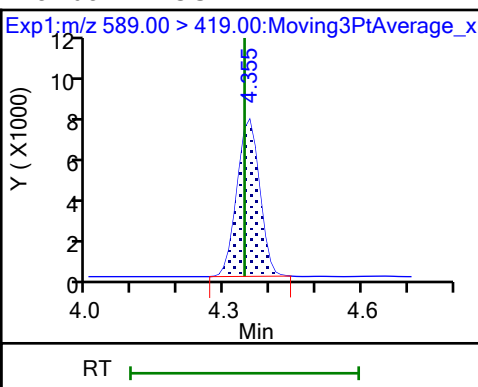
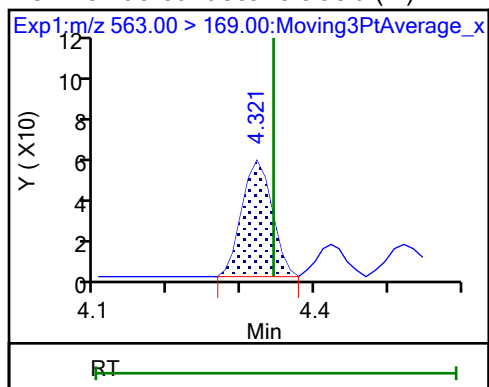
31 Perfluoroundecanoic acid (M)



31 Perfluoroundecanoic acid (M)

D 32 d5-NEtFOSAA

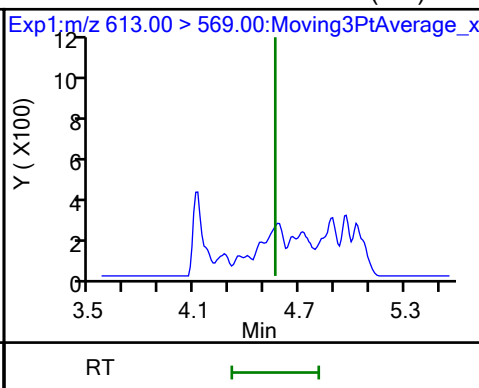
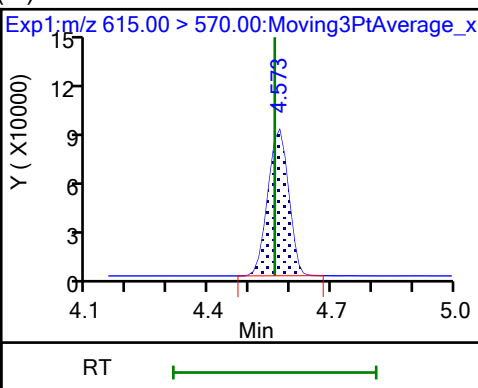
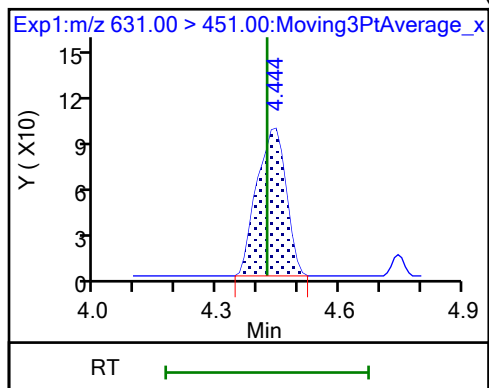
33 N-ethylperfluorooctanesulfonamid (M)

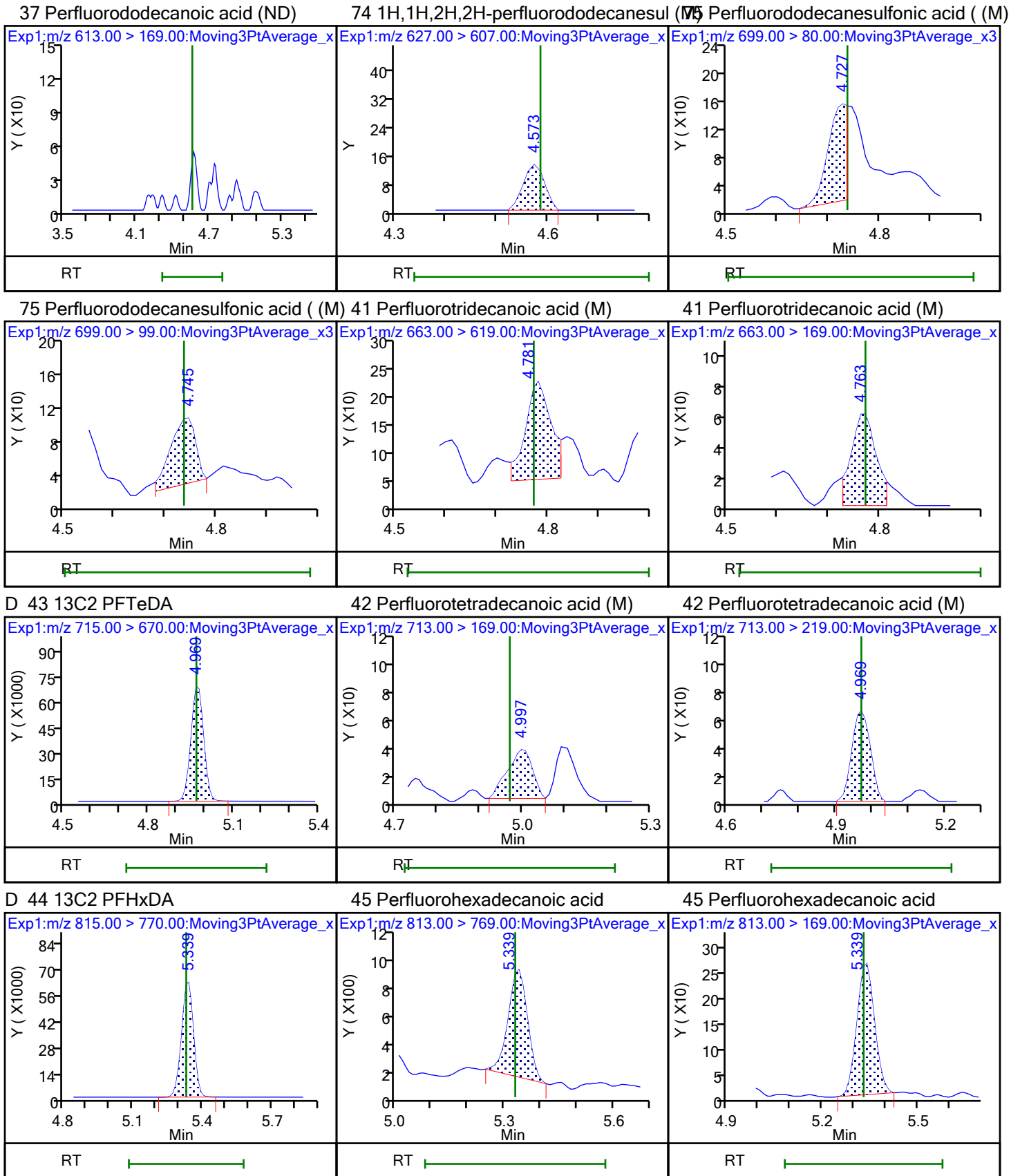


66 11-Chloroeicosafluoro-3-oxaundec (M)

36 13C2 PFDaA

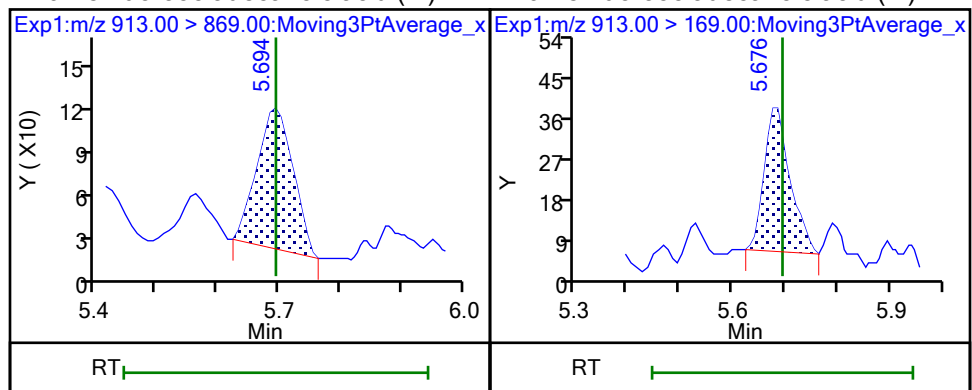
37 Perfluorododecanoic acid (ND)





46 Perfluorooctadecanoic acid (M)

46 Perfluorooctadecanoic acid (M)



Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d

Injection Date: 27-Oct-2020 17:38:45

Instrument ID: LC812

Lims ID: MB 200-160391/1-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

4

Worklist Smp#: 7

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

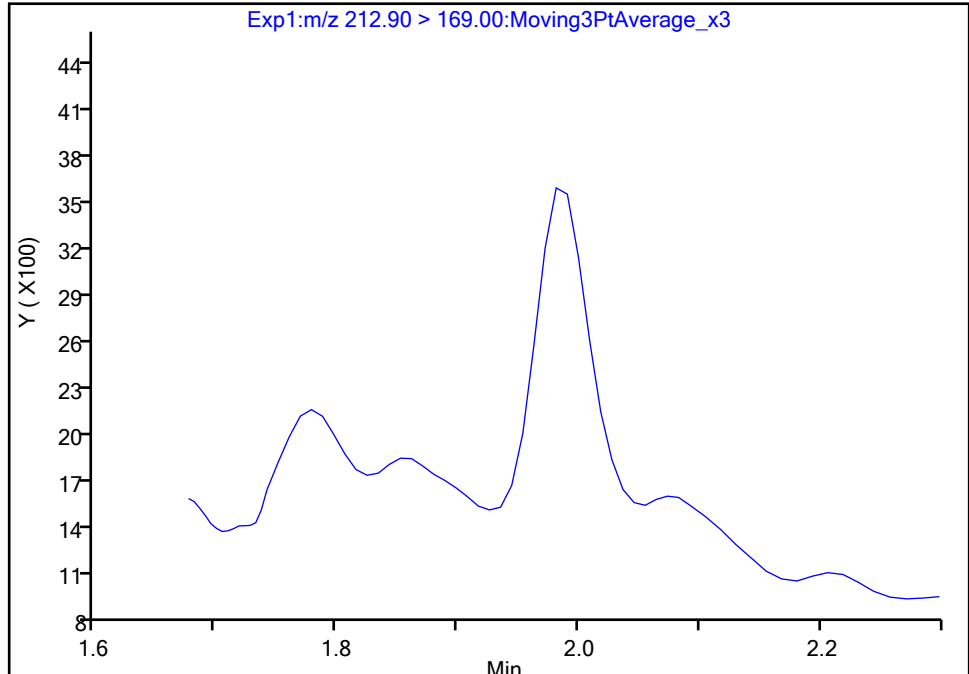
2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

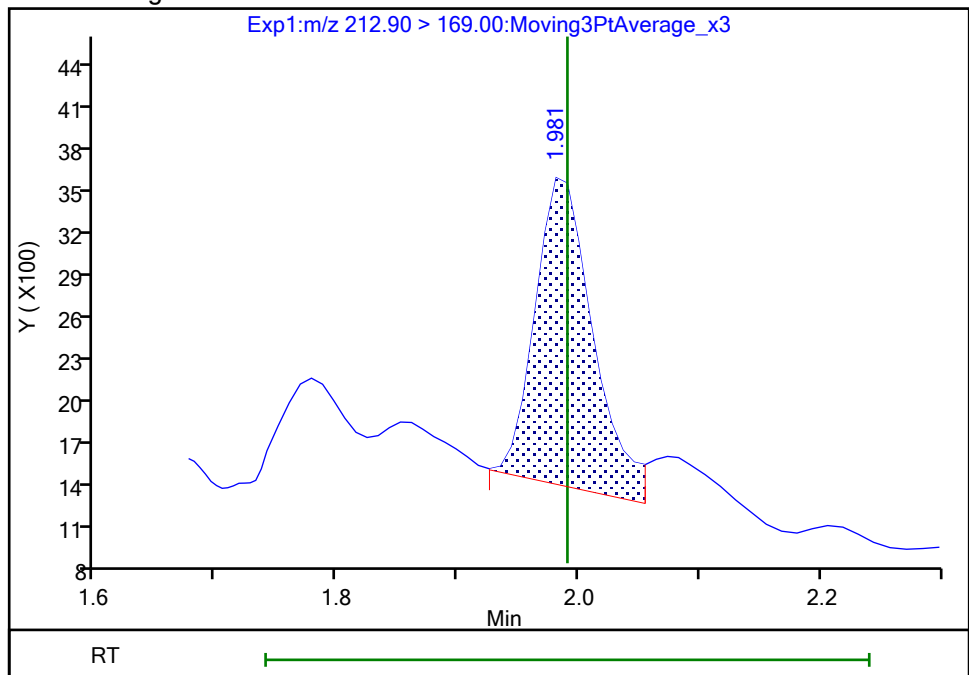
Not Detected

Expected RT: 1.99

Processing Integration Results



Manual Integration Results



RT: 1.98

Area: 7081

Amount: 0.010422

Amount Units: ng/ml

Reviewer: deannd, 28-Oct-2020 10:16:20

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

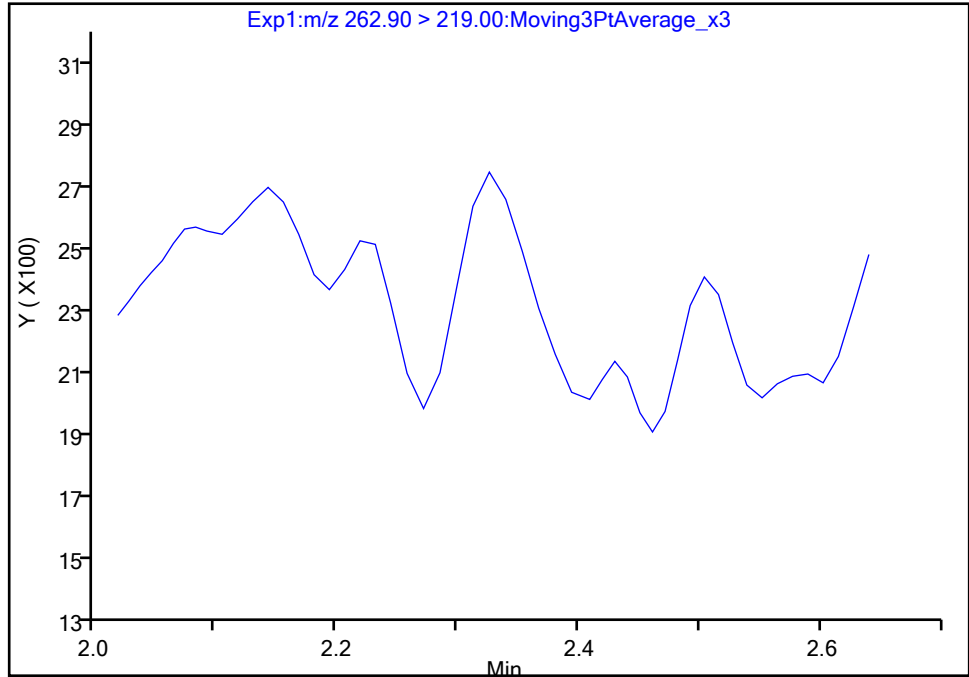
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d
Injection Date: 27-Oct-2020 17:38:45 Instrument ID: LC812
Lims ID: MB 200-160391/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

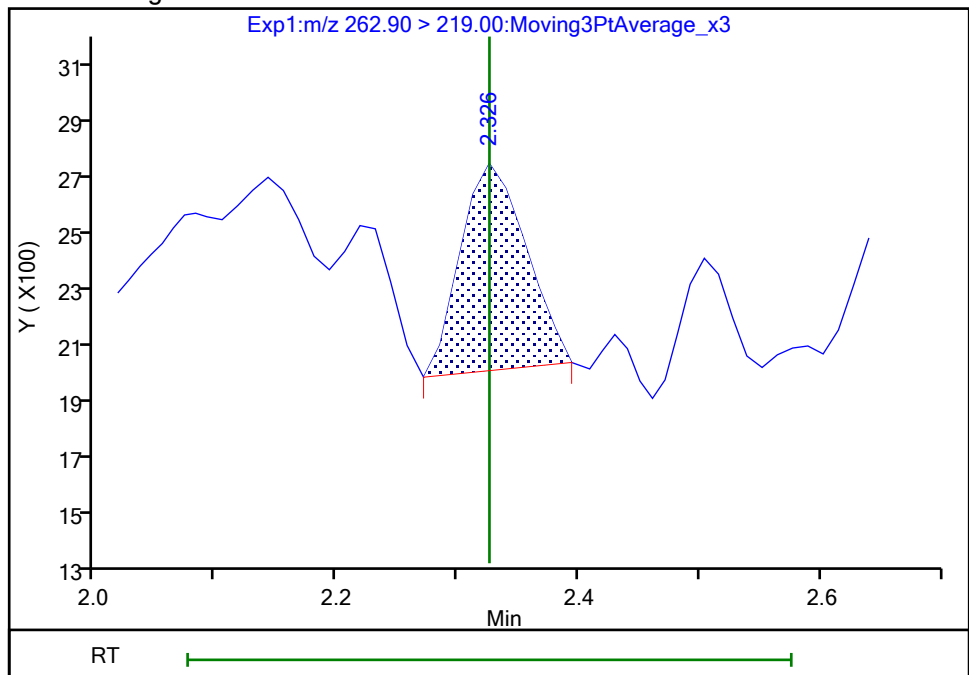
Not Detected
Expected RT: 2.33

Processing Integration Results



RT: 2.33
Area: 2637
Amount: 0.004721
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 07:44:37

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

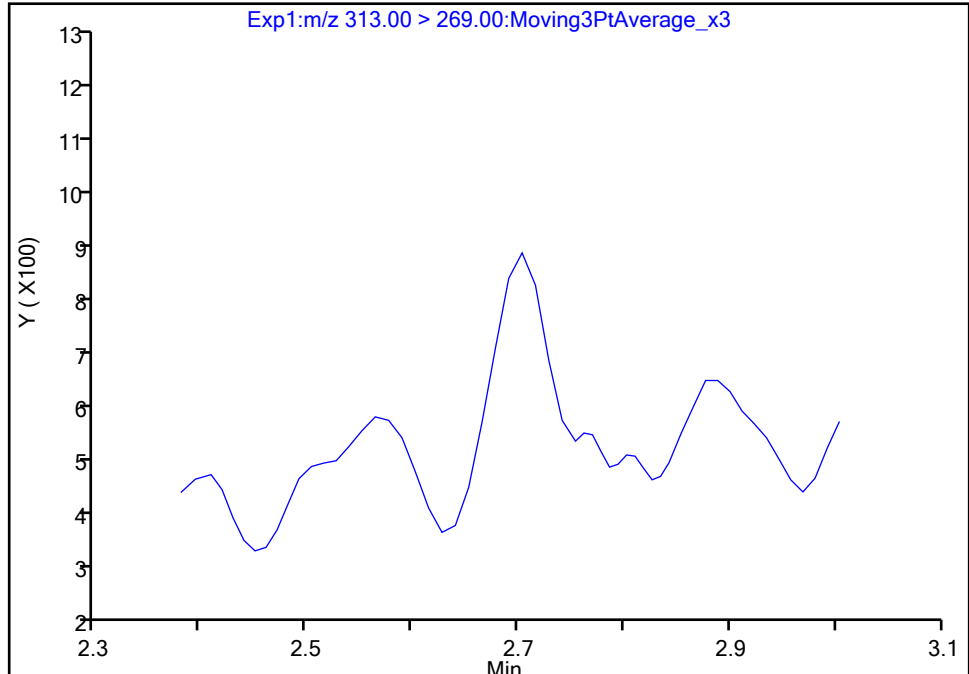
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Injection Date: 27-Oct-2020 17:38:45 Instrument ID: LC812
Lims ID: MB 200-160391/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

6 Perfluorohexanoic acid, CAS: 307-24-4

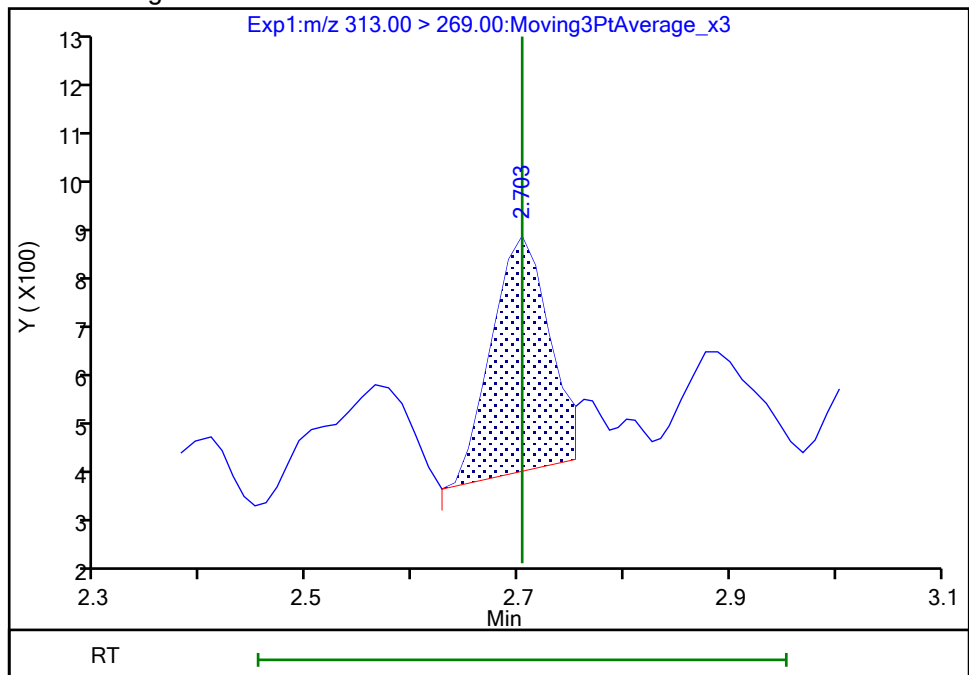
Signal: 1

Not Detected
Expected RT: 2.70

Processing Integration Results



Manual Integration Results



RT: 2.70
Area: 1689
Amount: 0.003272
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 07:45:06

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d

Injection Date: 27-Oct-2020 17:38:45

Instrument ID: LC812

Lims ID: MB 200-160391/1-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

4

Worklist Smp#:

7

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

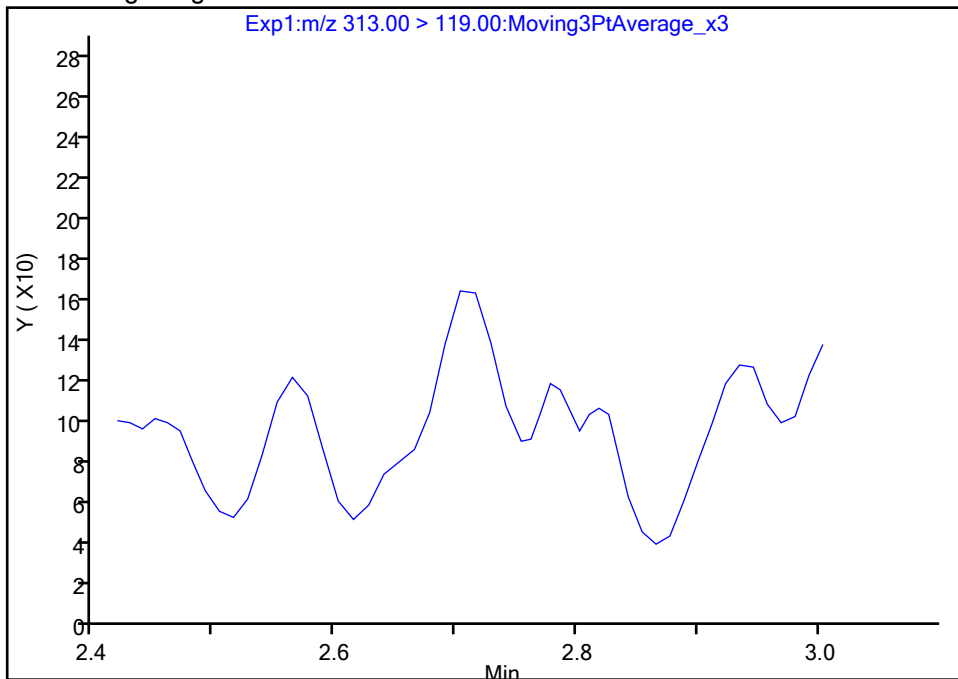
6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

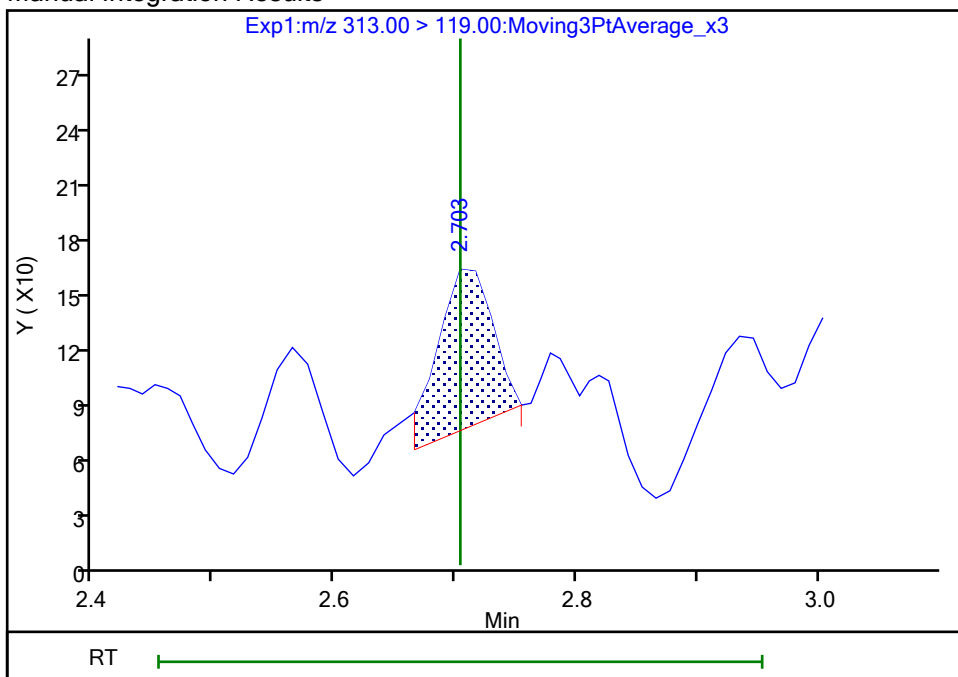
Not Detected

Expected RT: 2.70

Processing Integration Results



Manual Integration Results



RT: 2.70

Area: 267

Amount: 0.003272

Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 07:45:23

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

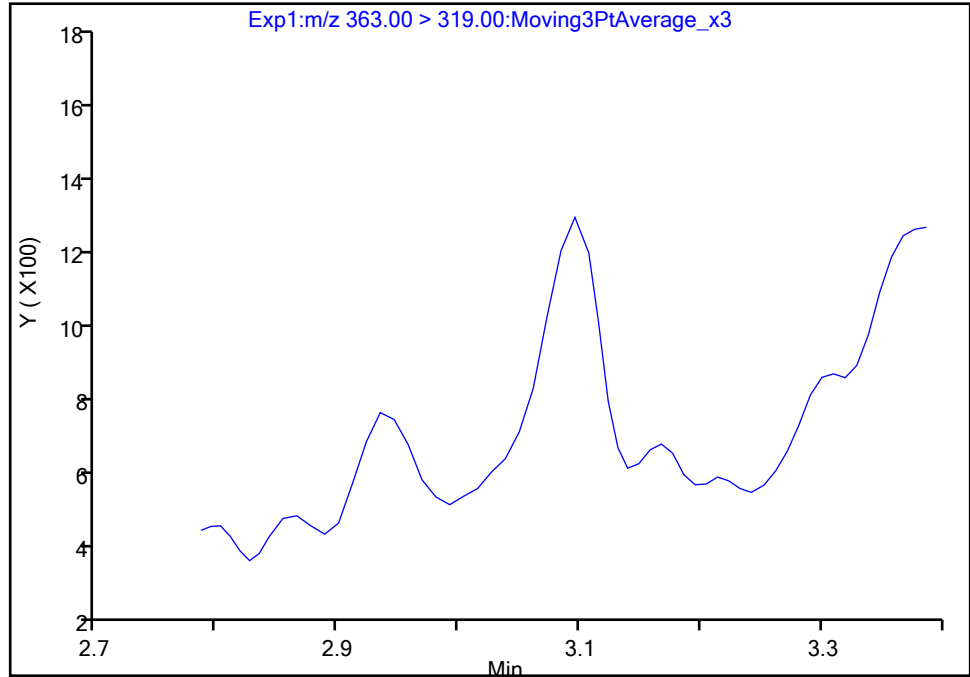
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d
Injection Date: 27-Oct-2020 17:38:45 Instrument ID: LC812
Lims ID: MB 200-160391/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

10 Perfluoroheptanoic acid, CAS: 375-85-9

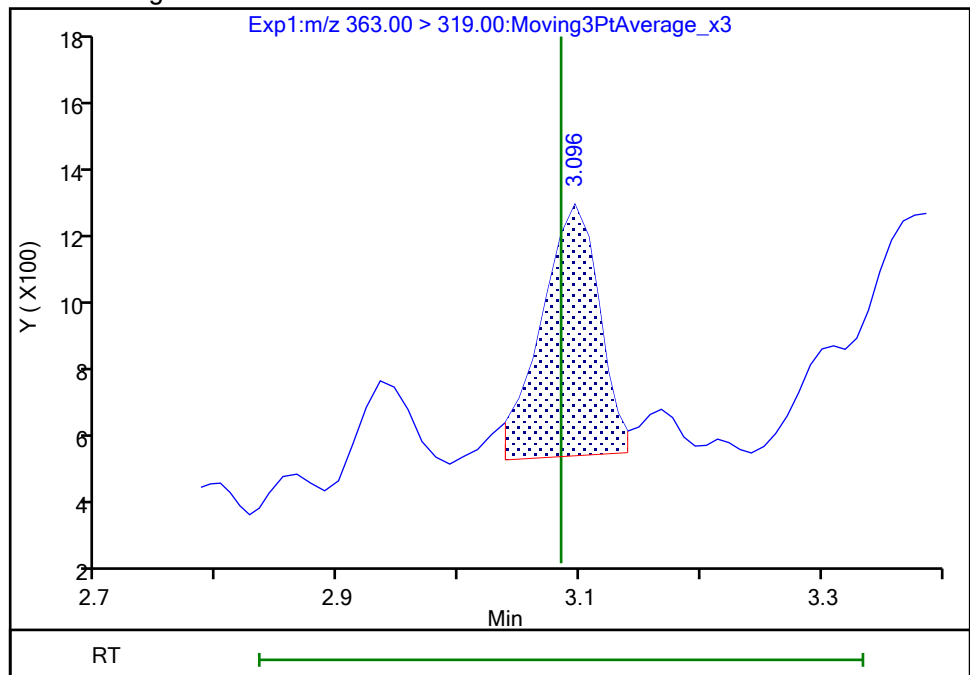
Signal: 1

Not Detected
Expected RT: 3.08

Processing Integration Results



Manual Integration Results



RT: 3.10
Area: 2399
Amount: 0.005338
Amount Units: ng/ml

Reviewer: deannd, 28-Oct-2020 10:18:38
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 756 of 906

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d

Injection Date: 27-Oct-2020 17:38:45

Instrument ID: LC812

Lims ID: MB 200-160391/1-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

4

Worklist Smp#: 7

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

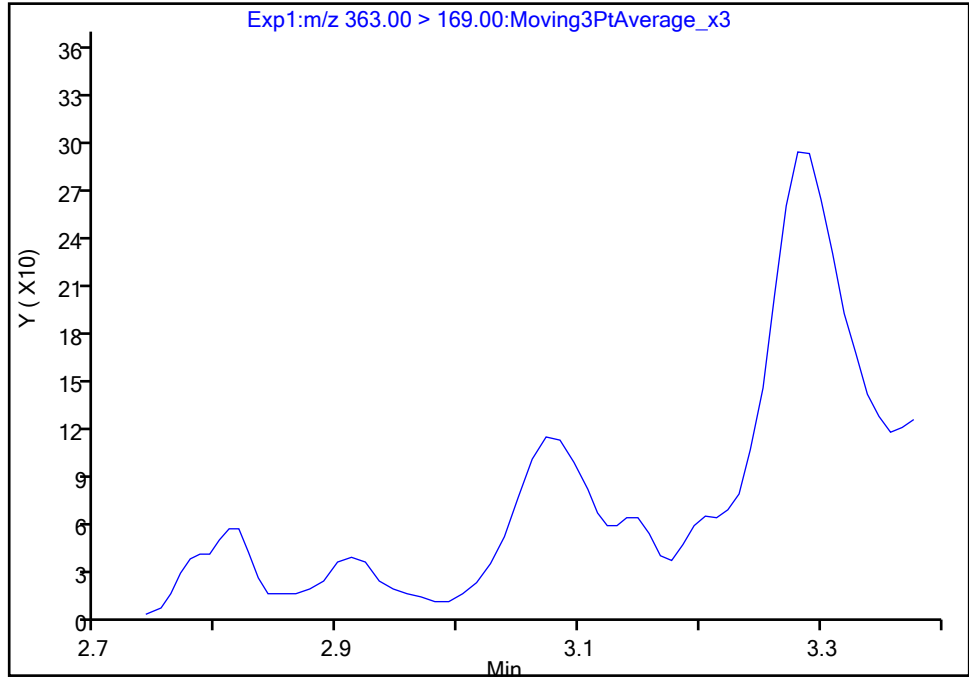
10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

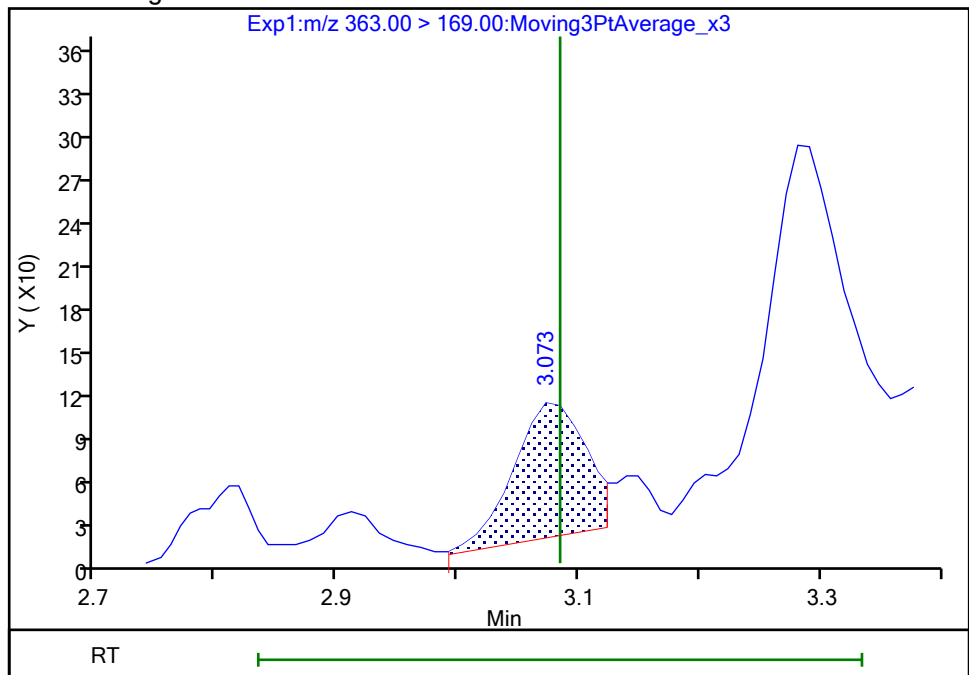
Not Detected

Expected RT: 3.08

Processing Integration Results



Manual Integration Results



Reviewer: deannd, 28-Oct-2020 10:18:45

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

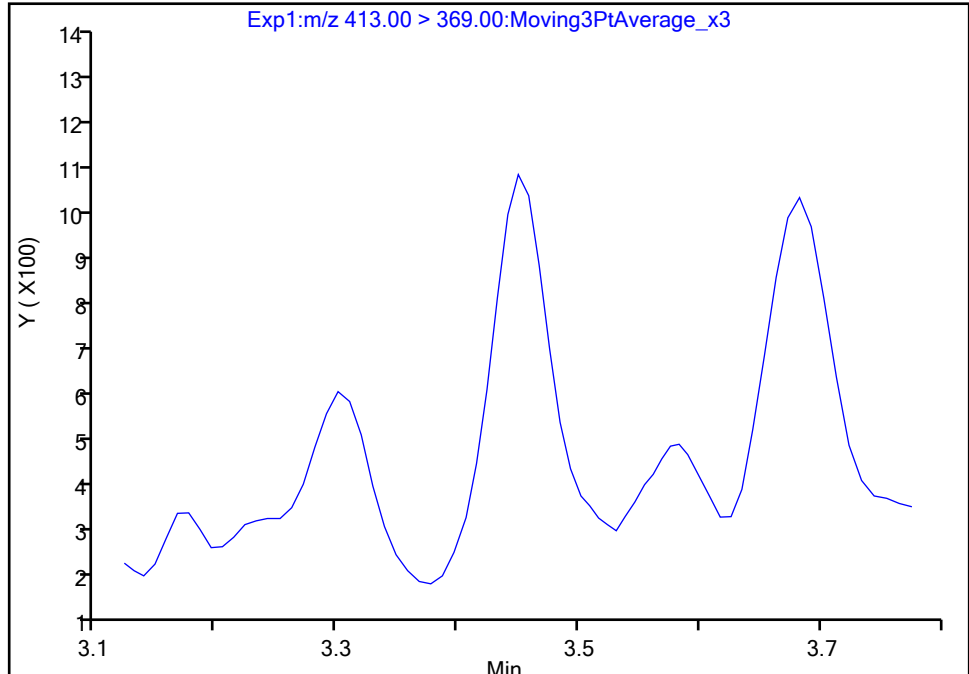
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d
Injection Date: 27-Oct-2020 17:38:45 Instrument ID: LC812
Lims ID: MB 200-160391/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

15 Perfluorooctanoic acid, CAS: 335-67-1

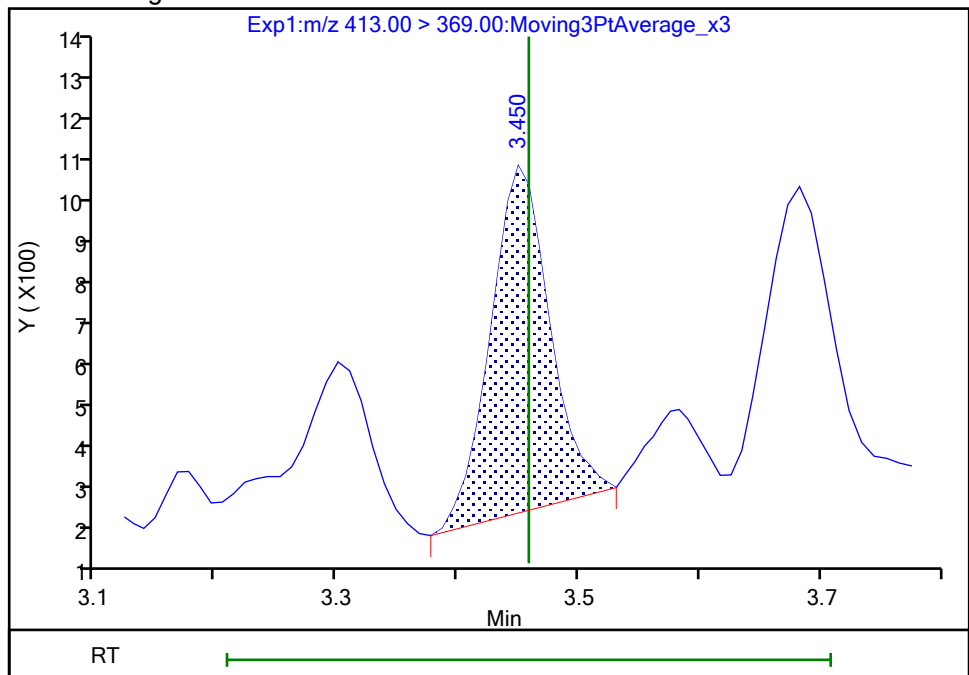
Signal: 1

Not Detected
Expected RT: 3.46

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 07:47:39

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d

Injection Date: 27-Oct-2020 17:38:45

Instrument ID: LC812

Lims ID: MB 200-160391/1-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

4

Worklist Smp#: 7

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

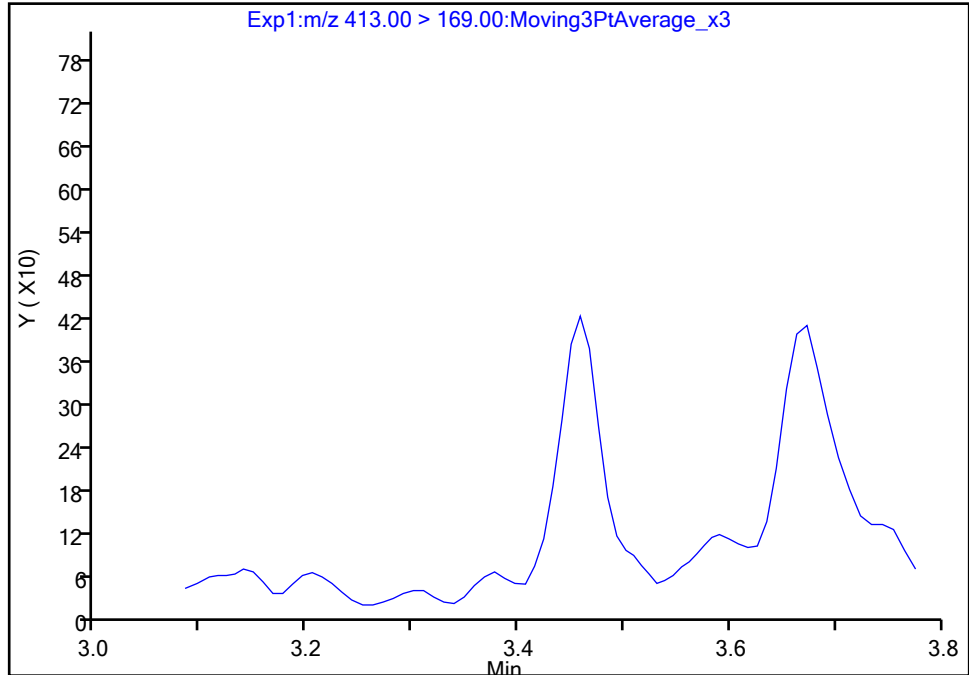
15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

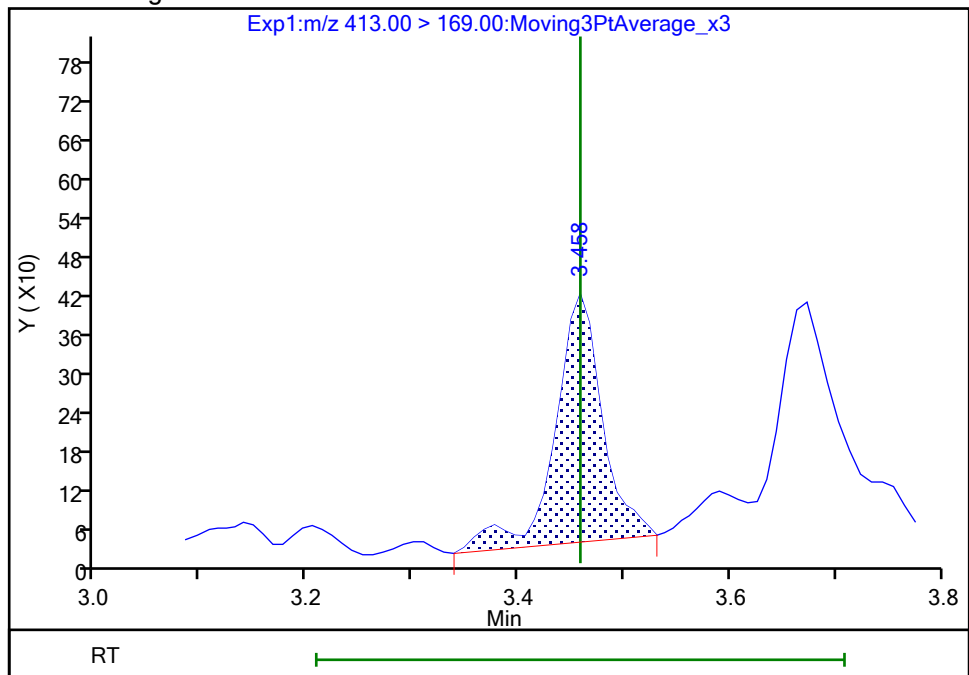
Not Detected

Expected RT: 3.46

Processing Integration Results



Manual Integration Results



RT: 3.46

Area: 1192

Amount: 0.006052

Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 07:47:45

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

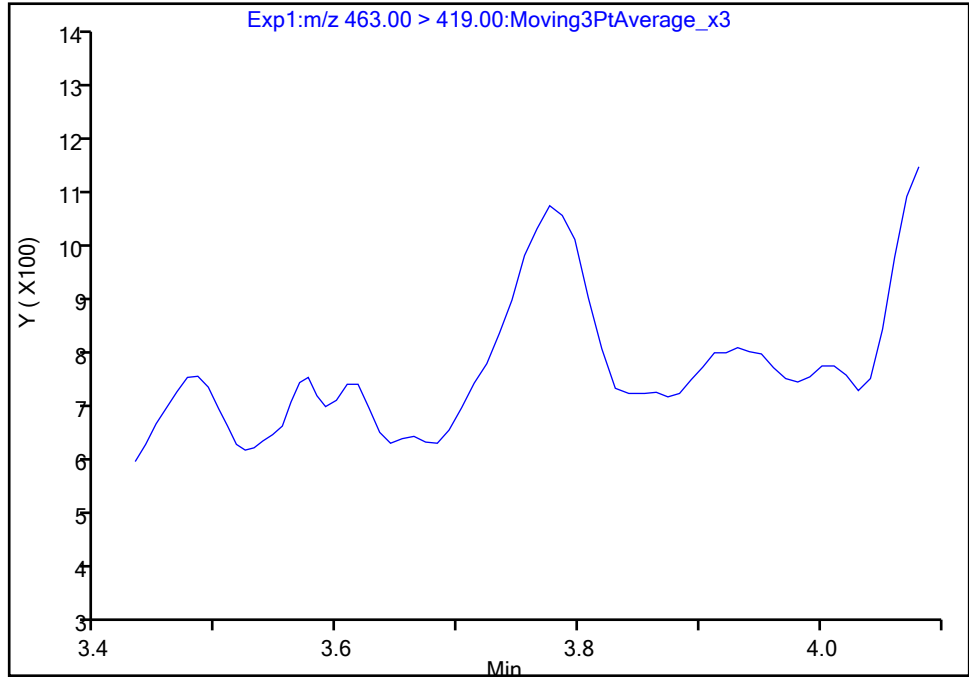
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d
Injection Date: 27-Oct-2020 17:38:45 Instrument ID: LC812
Lims ID: MB 200-160391/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

20 Perfluorononanoic acid, CAS: 375-95-1

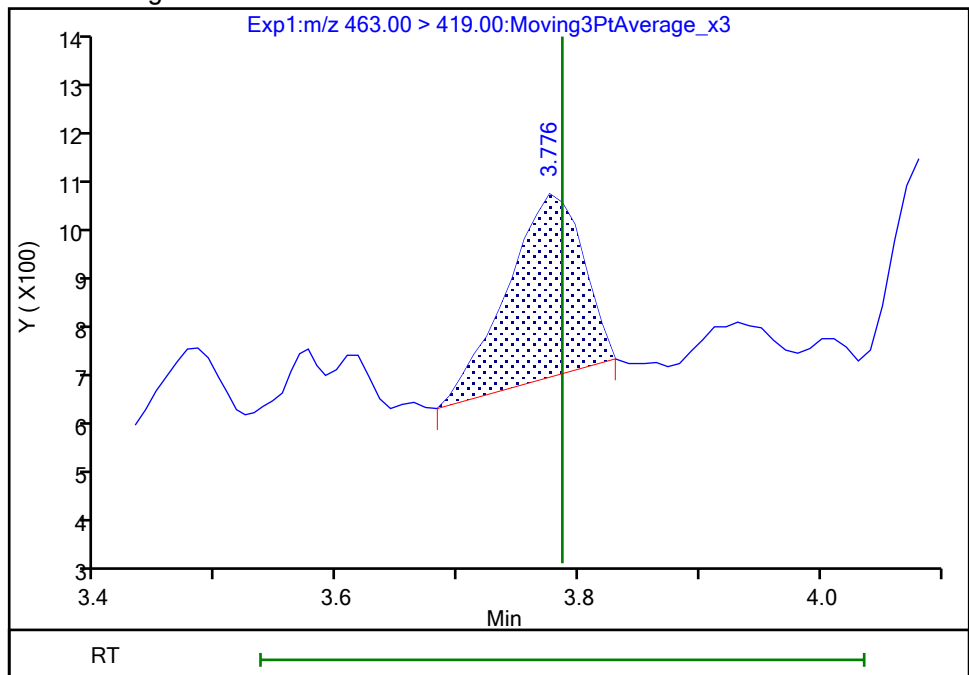
Signal: 1

Not Detected
Expected RT: 3.79

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 07:48:23

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d

Injection Date: 27-Oct-2020 17:38:45

Instrument ID: LC812

Lims ID: MB 200-160391/1-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

4

Worklist Smp#:

7

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

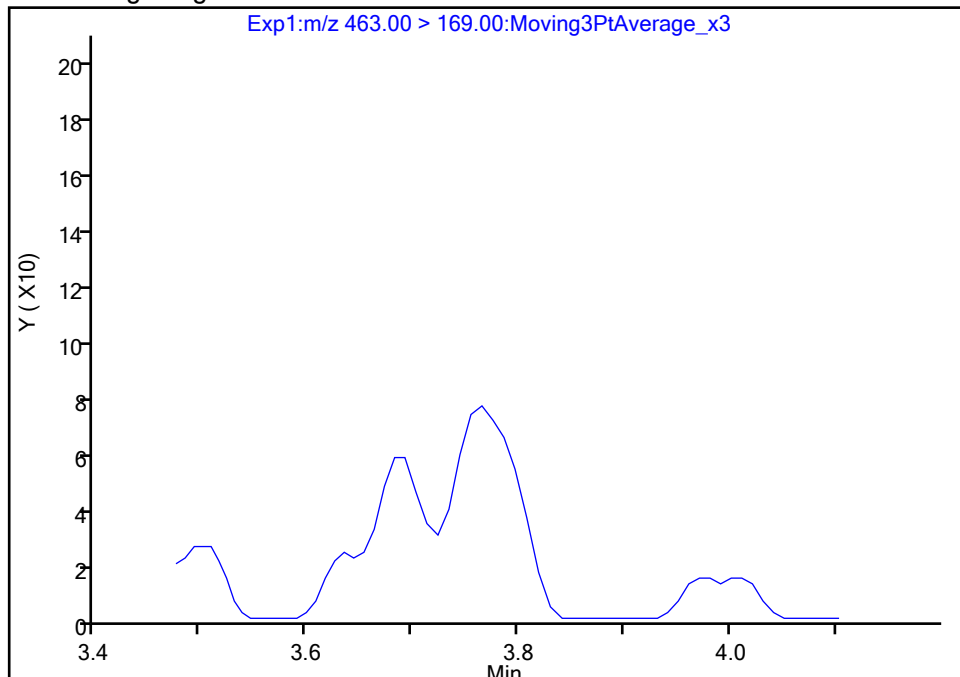
20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

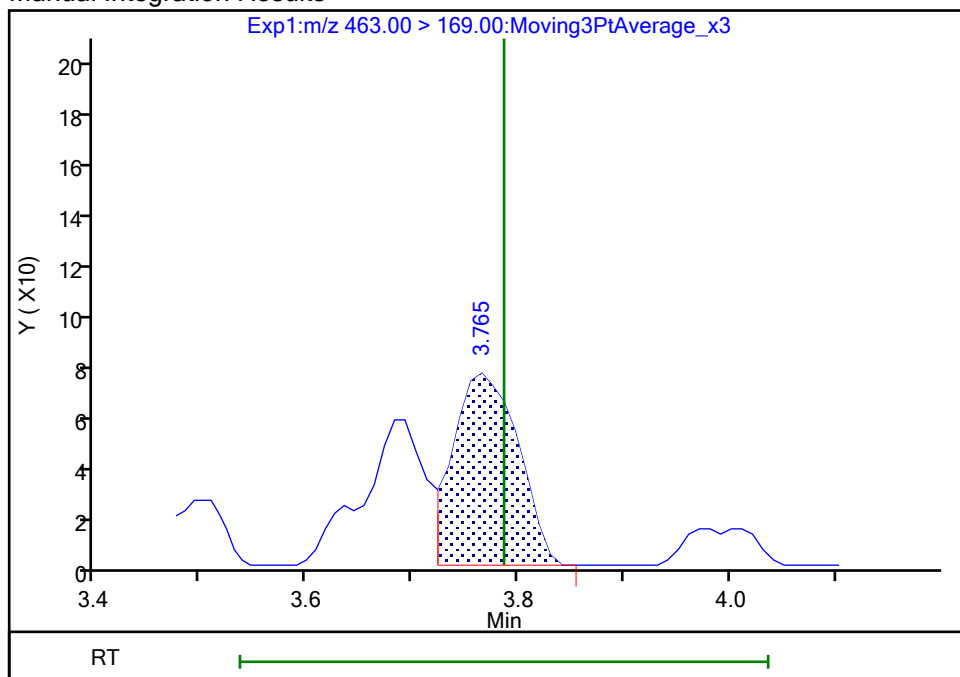
Not Detected

Expected RT: 3.79

Processing Integration Results



Manual Integration Results



RT: 3.77

Area: 312

Amount: 0.004084

Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 07:48:31

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

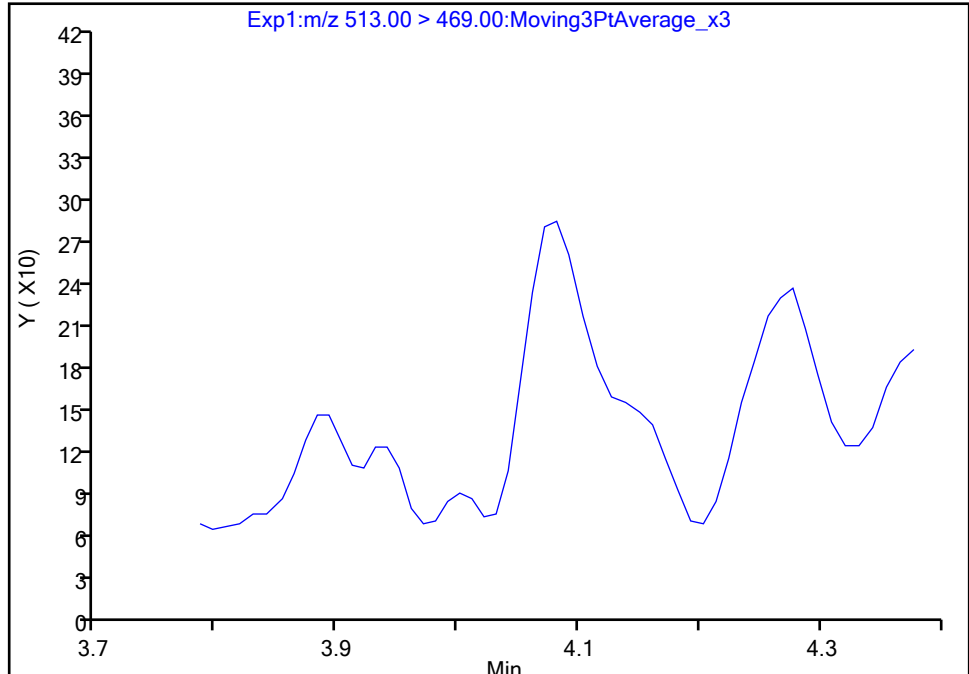
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d
Injection Date: 27-Oct-2020 17:38:45 Instrument ID: LC812
Lims ID: MB 200-160391/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

24 Perfluorodecanoic acid, CAS: 335-76-2

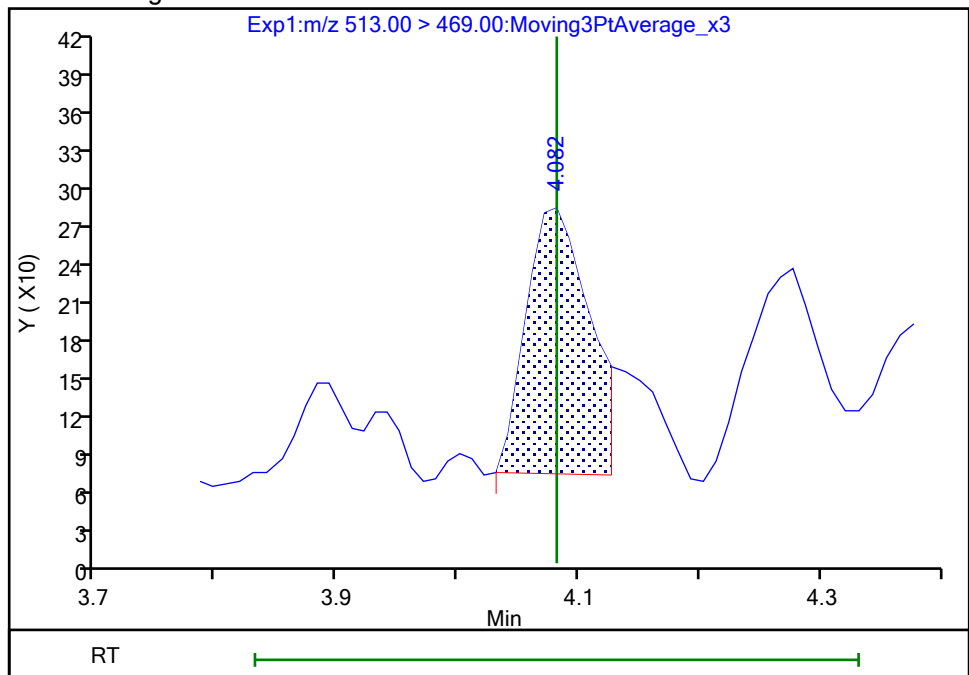
Signal: 1

Not Detected
Expected RT: 4.08

Processing Integration Results



Manual Integration Results



RT: 4.08
Area: 754
Amount: 0.002257
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 07:49:02

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d

Injection Date: 27-Oct-2020 17:38:45

Instrument ID: LC812

Lims ID: MB 200-160391/1-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

4

Worklist Smp#: 7

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

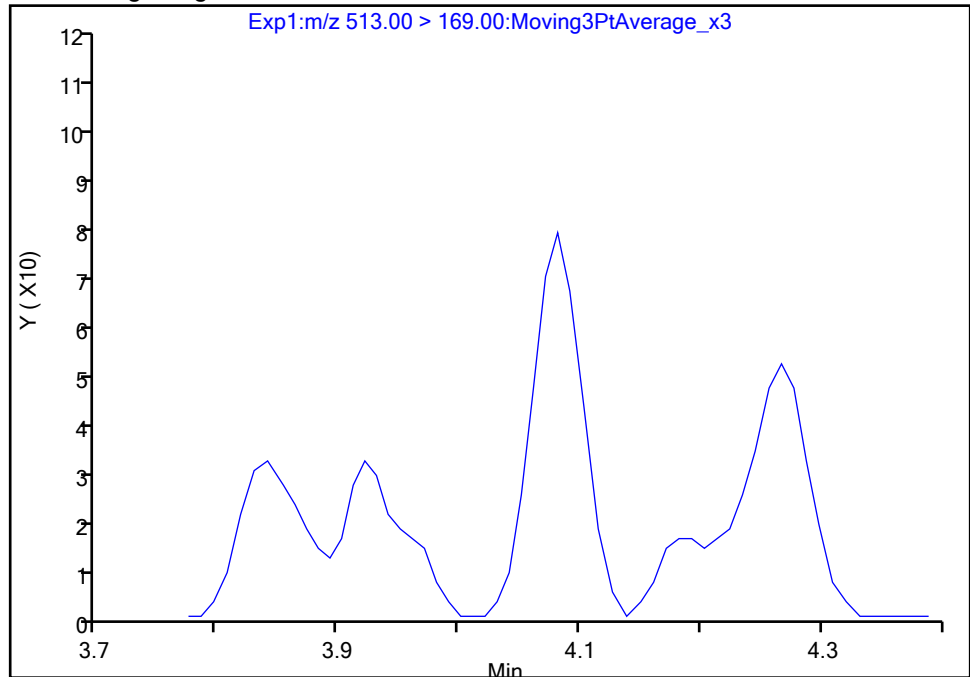
24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

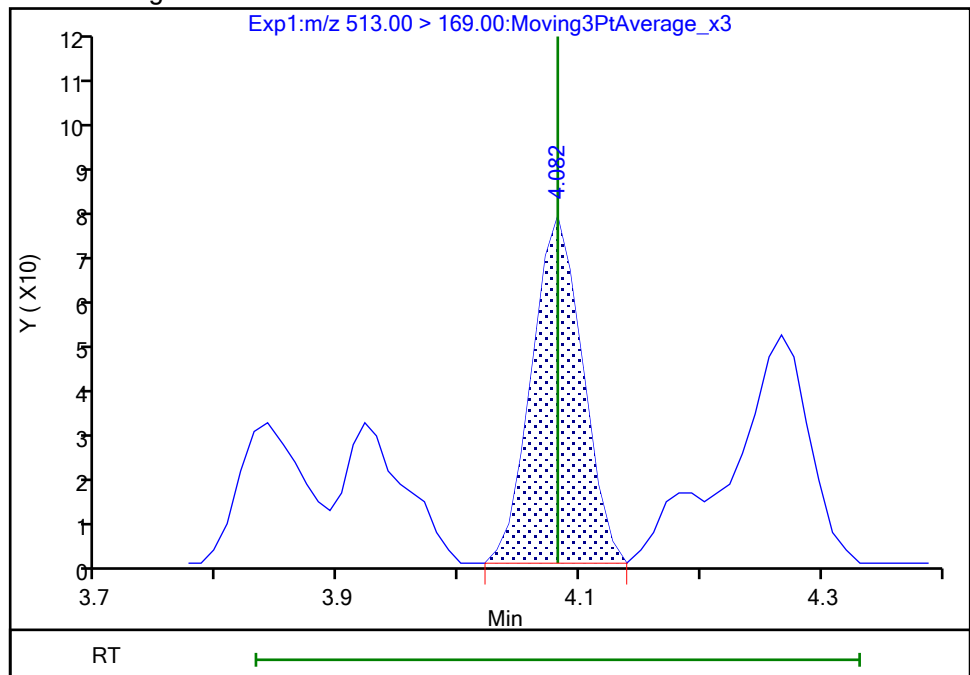
Not Detected

Expected RT: 4.08

Processing Integration Results



Manual Integration Results



RT: 4.08

Area: 230

Amount: 0.002257

Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 07:49:06

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d

Injection Date: 27-Oct-2020 17:38:45

Instrument ID: LC812

Lims ID: MB 200-160391/1-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

4

Worklist Smp#: 7

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

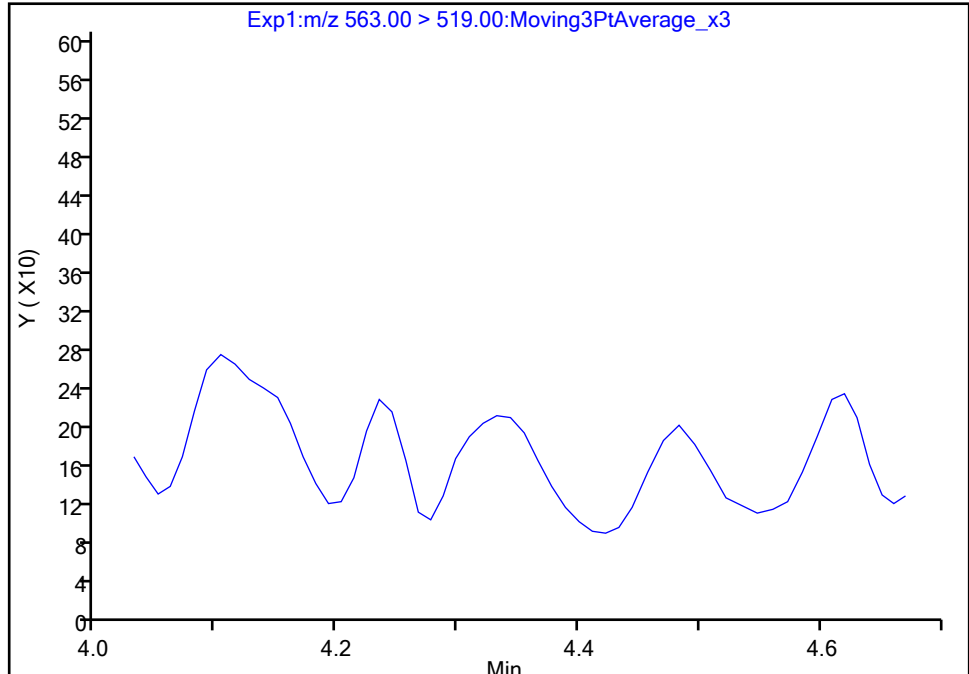
31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

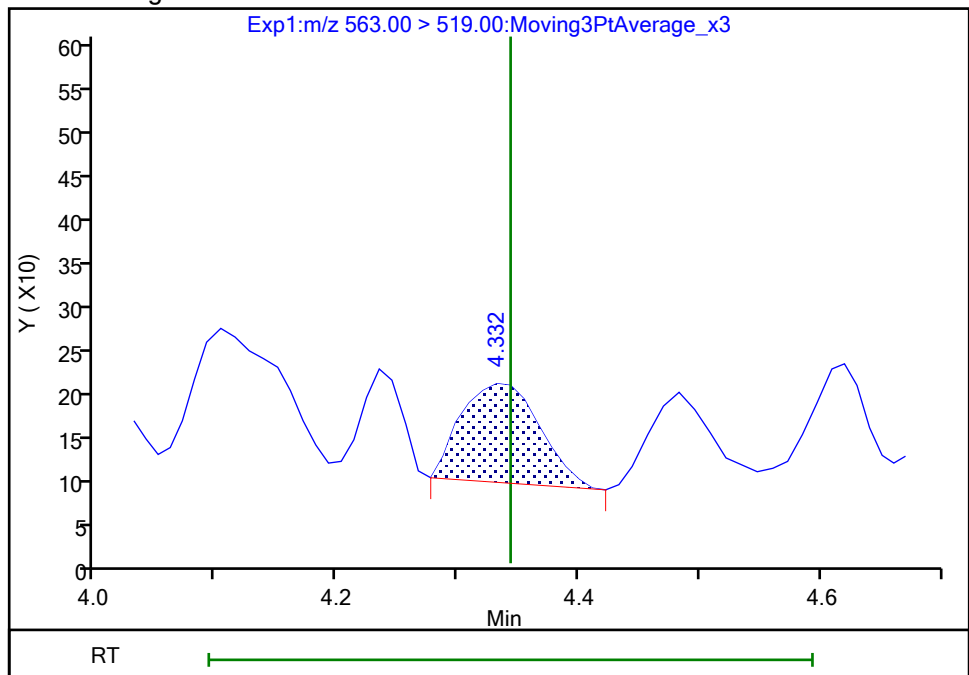
Not Detected

Expected RT: 4.34

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 07:49:45

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d

Injection Date: 27-Oct-2020 17:38:45

Instrument ID: LC812

Lims ID: MB 200-160391/1-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

4

Worklist Smp#: 7

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

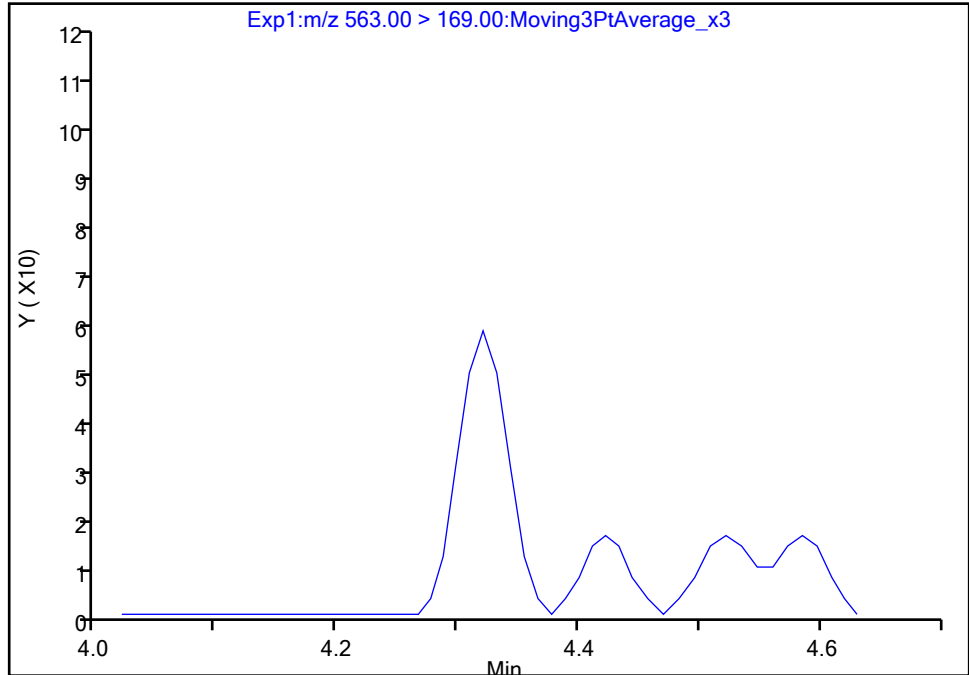
31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

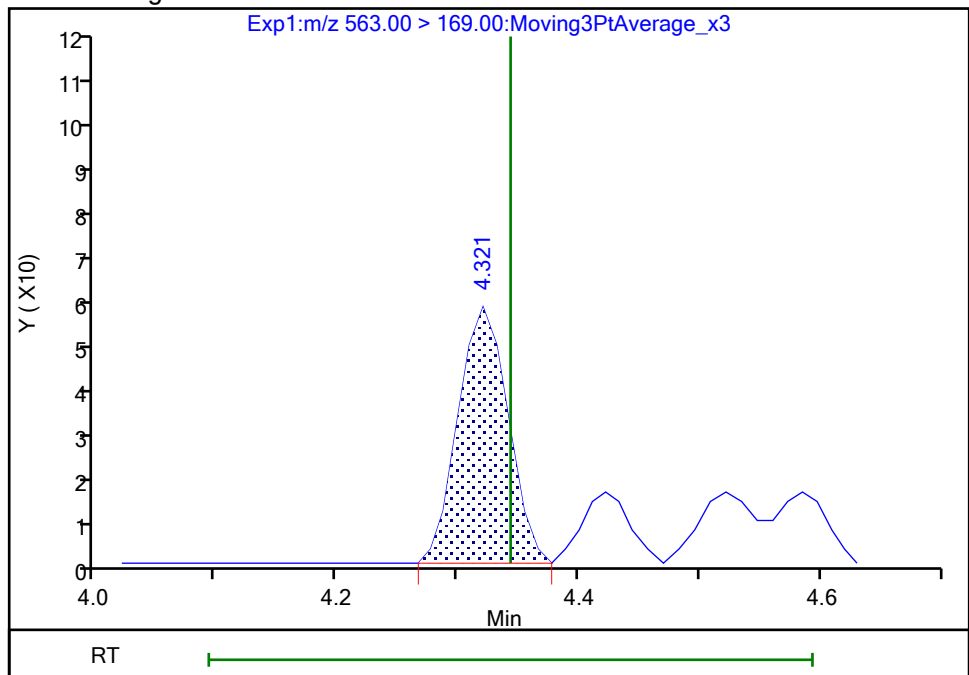
Not Detected

Expected RT: 4.34

Processing Integration Results



Manual Integration Results



RT: 4.32

Area: 155

Amount: 0.002035

Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 07:49:49

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d

Injection Date: 27-Oct-2020 17:38:45

Instrument ID: LC812

Lims ID: MB 200-160391/1-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

4

Worklist Smp#: 7

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

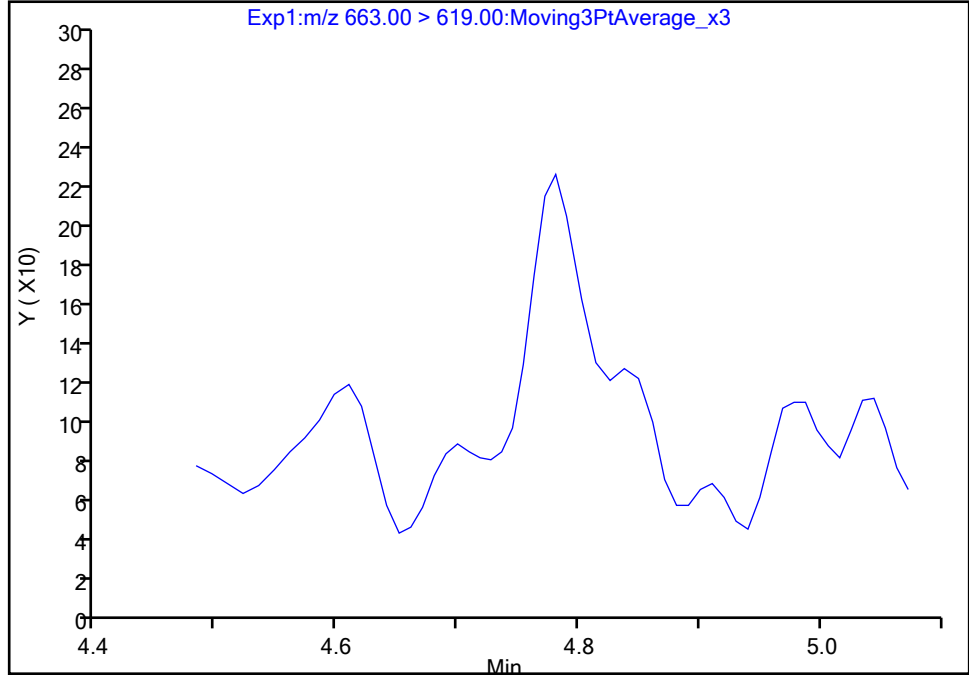
41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

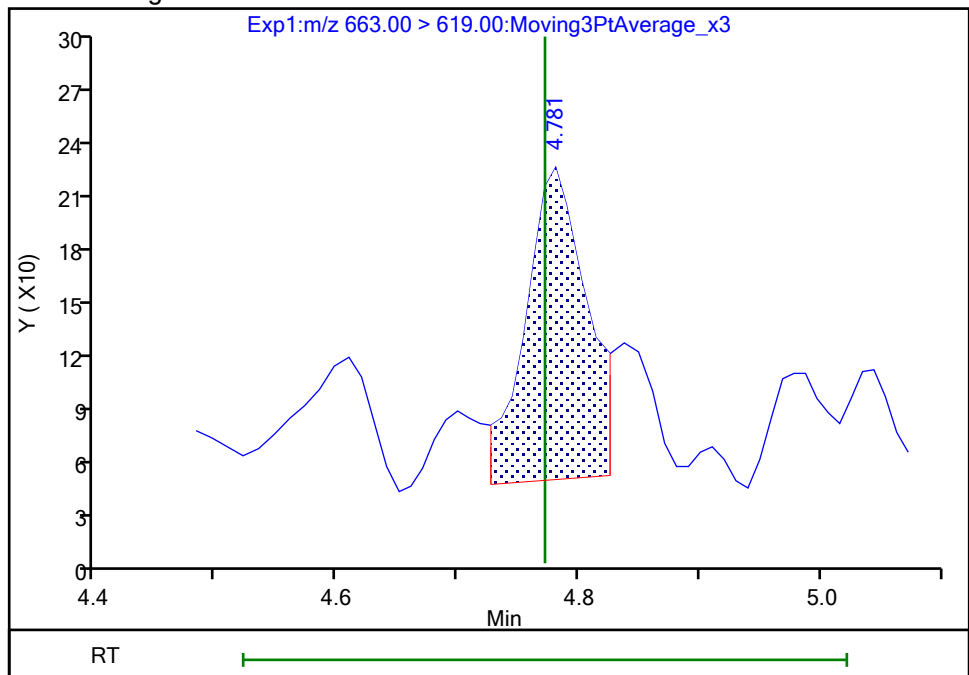
Not Detected

Expected RT: 4.77

Processing Integration Results



Manual Integration Results



RT: 4.78

Area: 602

Amount: 0.002982

Amount Units: ng/ml

Reviewer: deannd, 28-Oct-2020 10:20:31

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d

Injection Date: 27-Oct-2020 17:38:45

Instrument ID: LC812

Lims ID: MB 200-160391/1-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

4

Worklist Smp#: 7

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

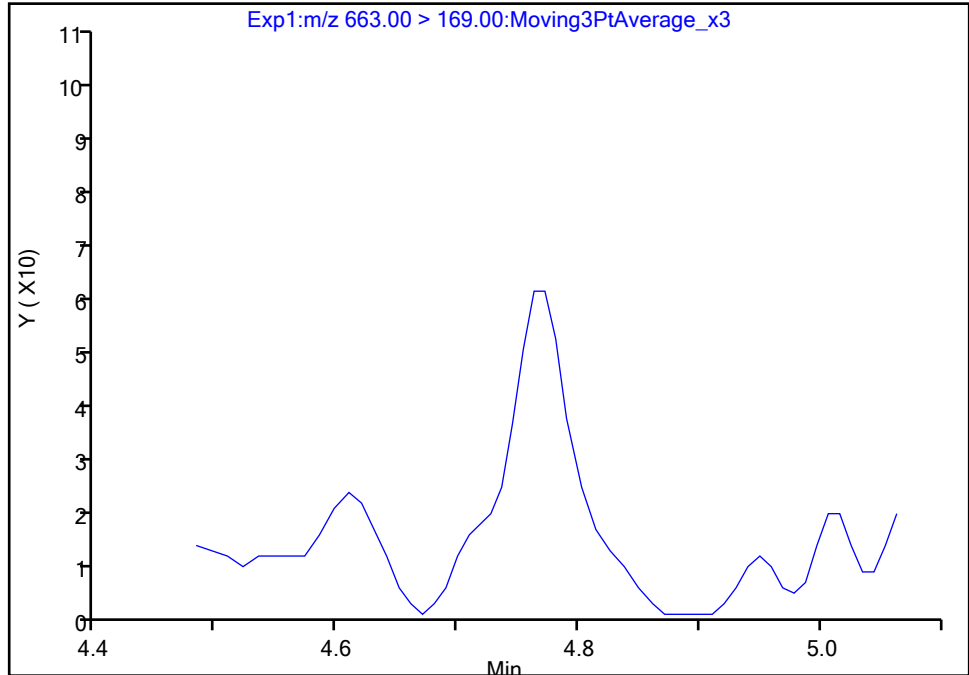
41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

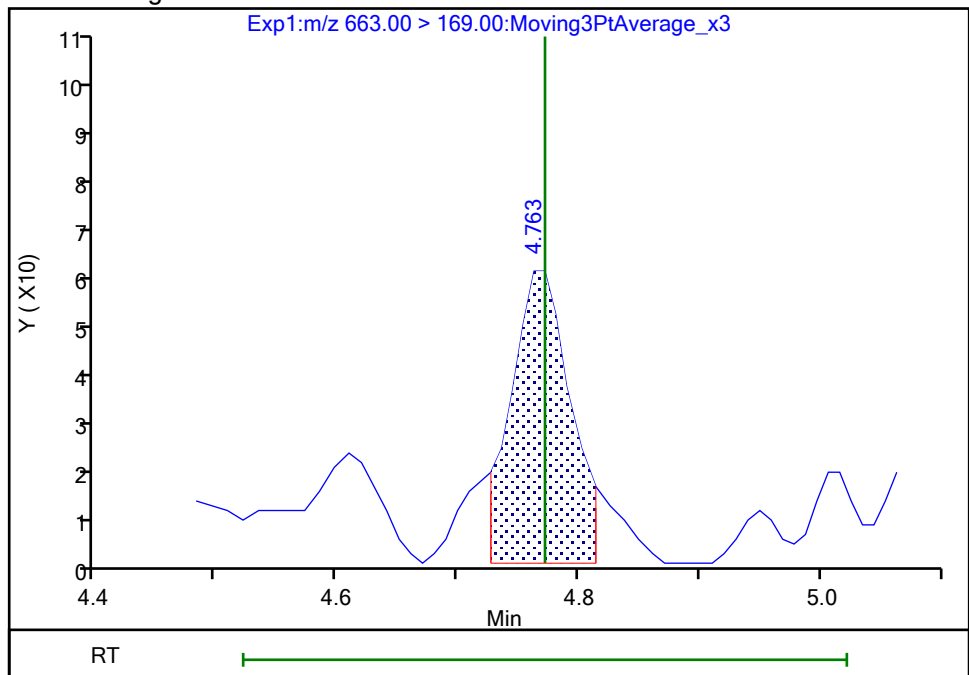
Not Detected

Expected RT: 4.77

Processing Integration Results



Manual Integration Results



RT: 4.76

Area: 204

Amount: 0.002982

Amount Units: ng/ml

Reviewer: deannd, 28-Oct-2020 10:20:55

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

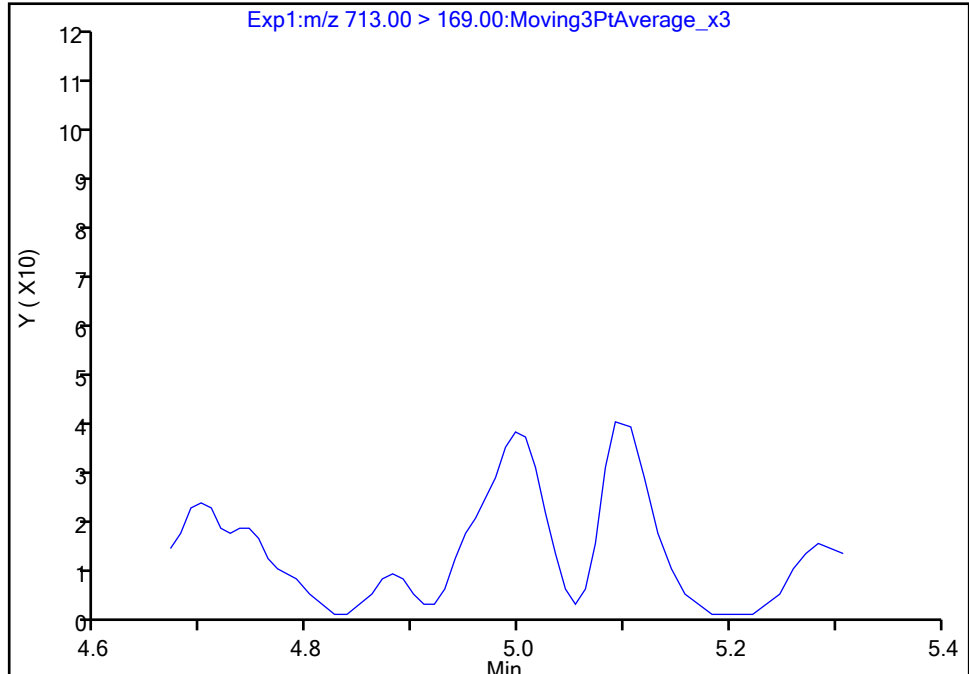
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d
Injection Date: 27-Oct-2020 17:38:45 Instrument ID: LC812
Lims ID: MB 200-160391/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

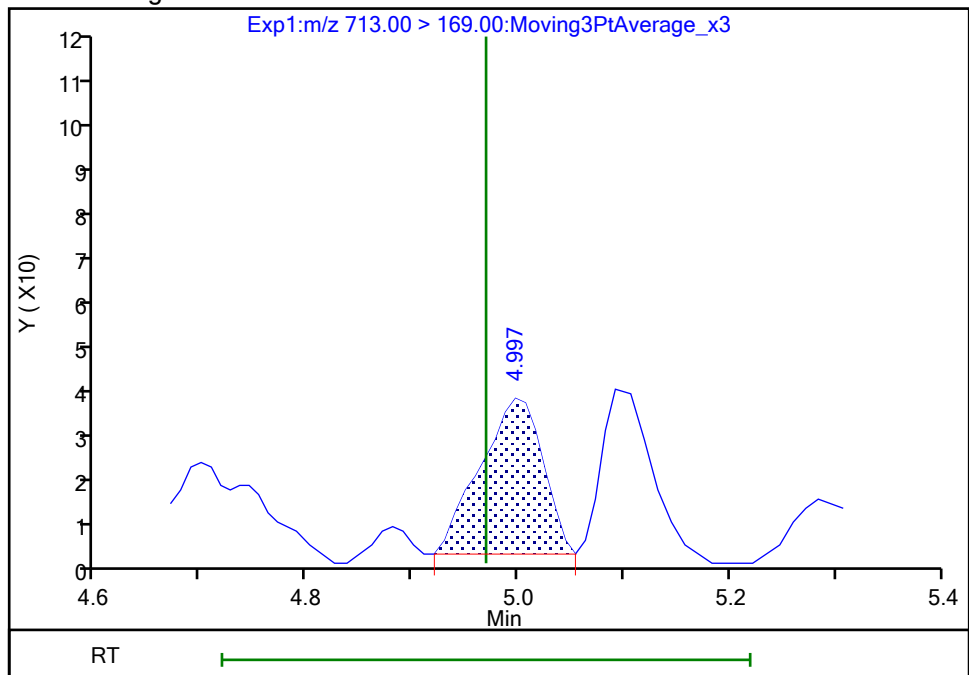
Not Detected
Expected RT: 4.97

Processing Integration Results



Manual Integration Results

RT: 5.00
Area: 139
Amount: 0.003536
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 07:50:38

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d

Injection Date: 27-Oct-2020 17:38:45

Instrument ID: LC812

Lims ID: MB 200-160391/1-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

4

Worklist Smp#: 7

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

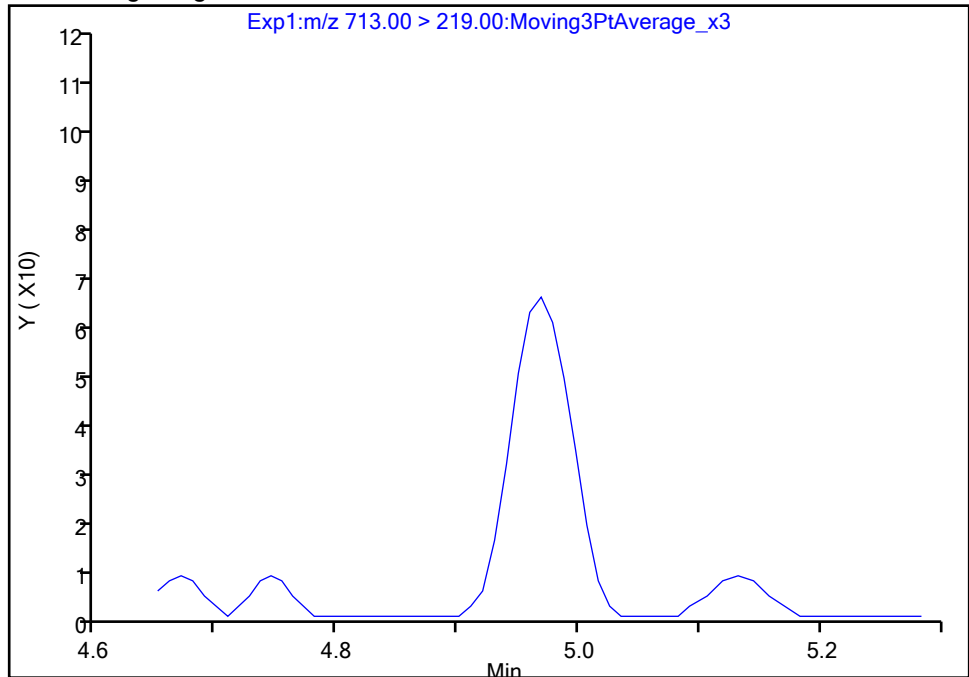
42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

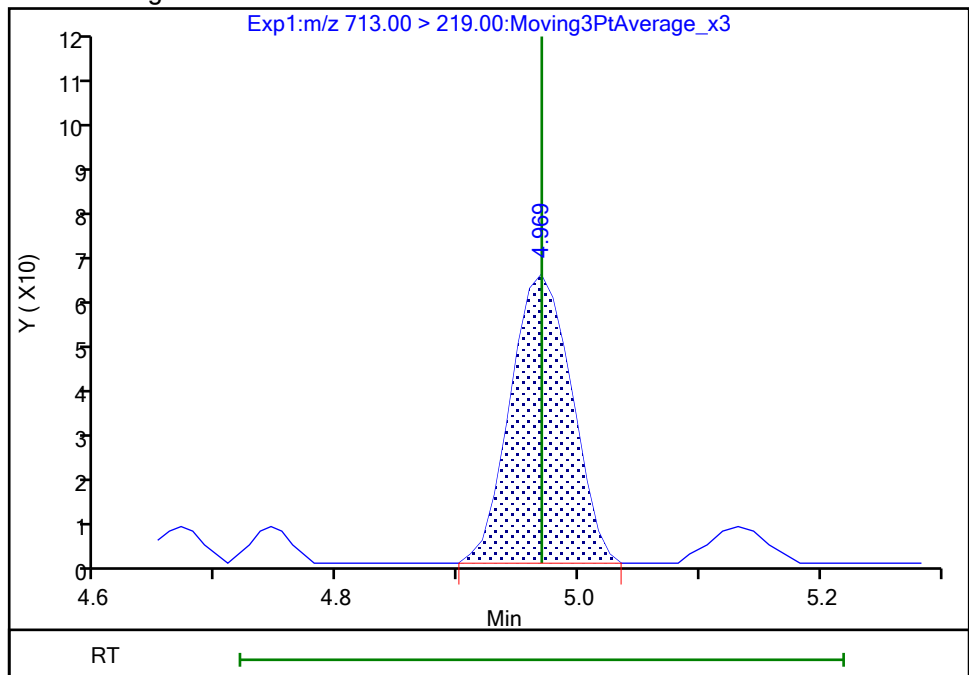
Not Detected

Expected RT: 4.97

Processing Integration Results



Manual Integration Results



RT: 4.97

Area: 221

Amount: 0.003536

Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 07:50:41

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

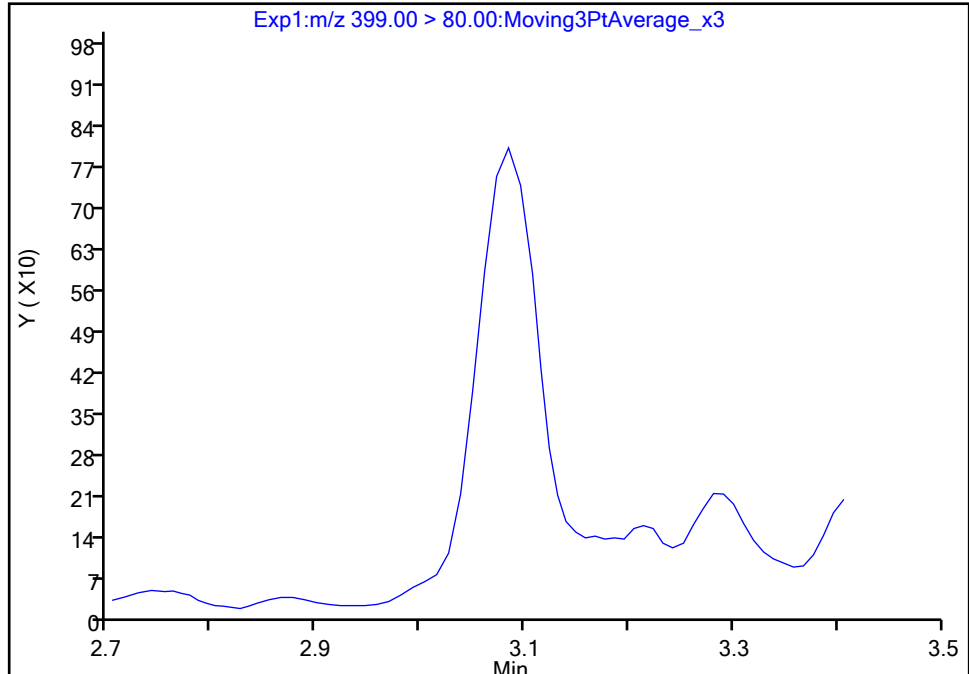
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d
Injection Date: 27-Oct-2020 17:38:45 Instrument ID: LC812
Lims ID: MB 200-160391/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

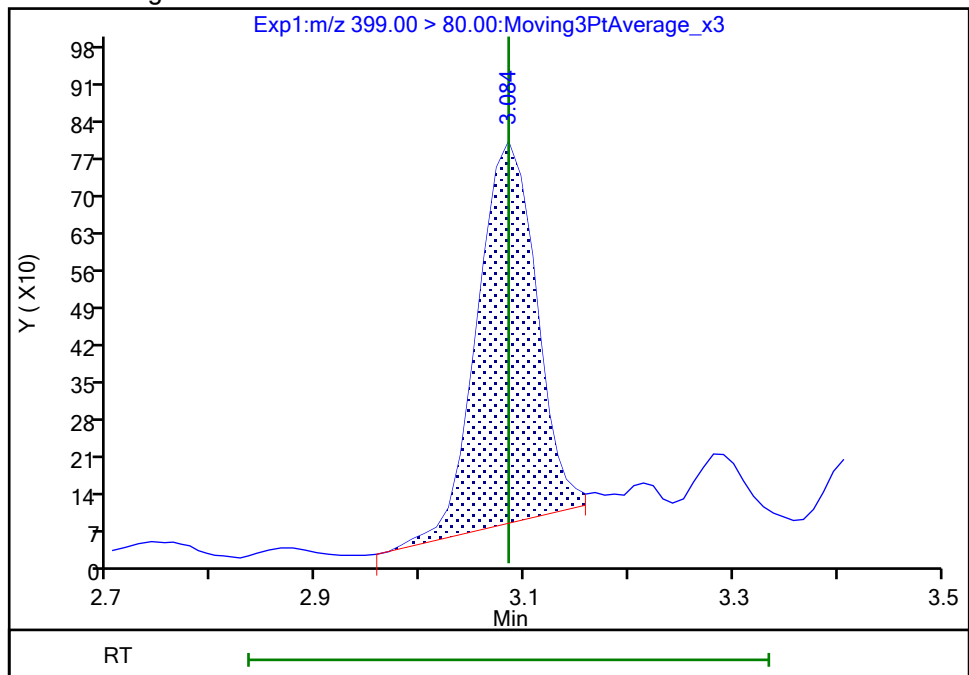
Not Detected
Expected RT: 3.08

Processing Integration Results



Manual Integration Results

RT: 3.08
Area: 2840
Amount: 0.006193
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 07:46:03

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d

Injection Date: 27-Oct-2020 17:38:45

Instrument ID: LC812

Lims ID: MB 200-160391/1-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

4

Worklist Smp#: 7

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

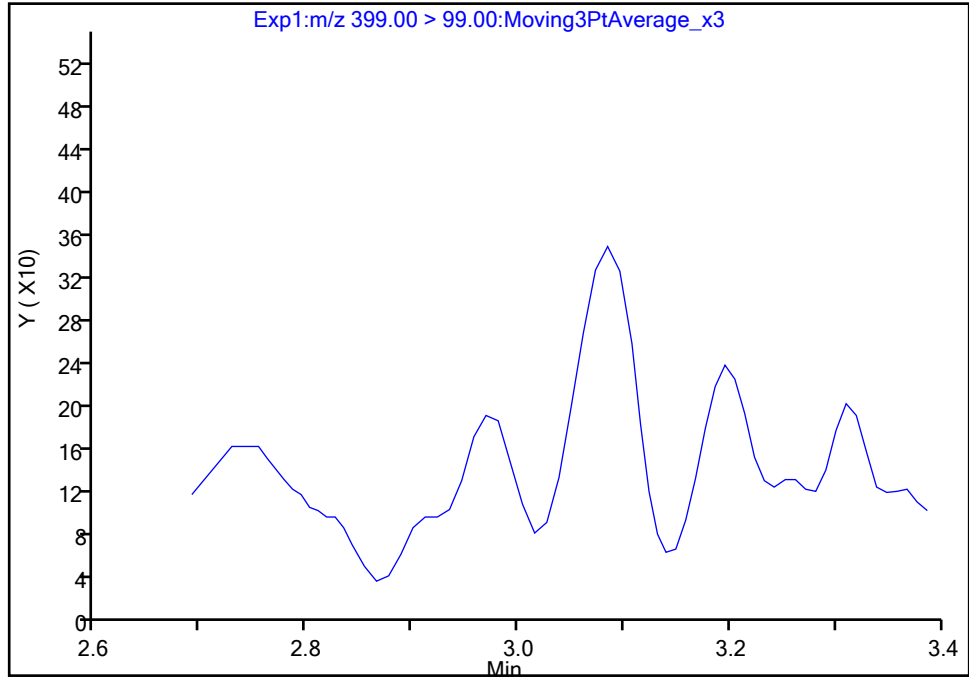
8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

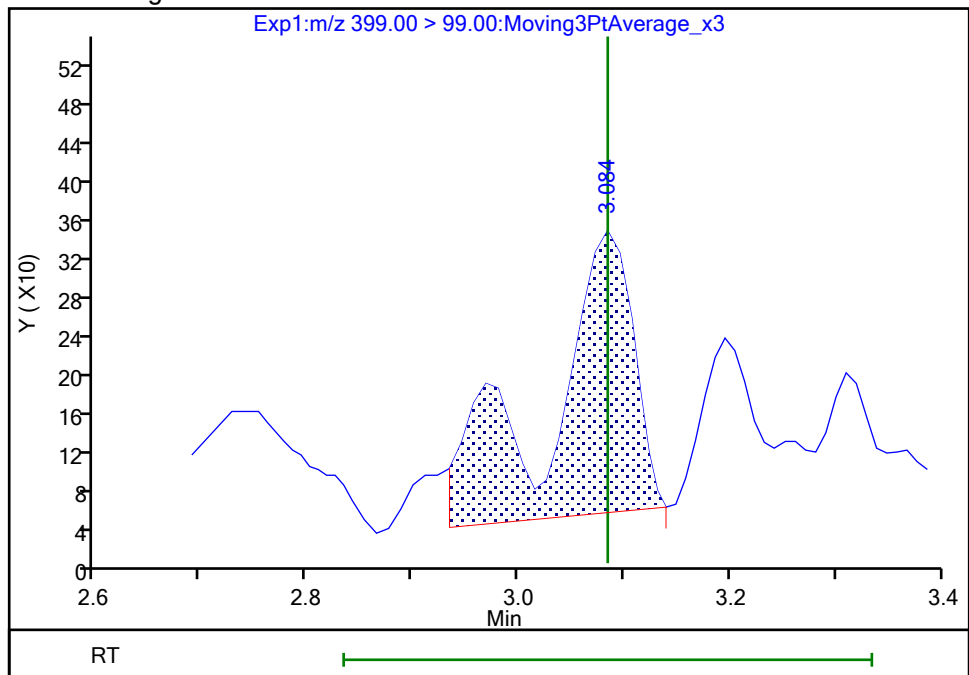
Not Detected

Expected RT: 3.08

Processing Integration Results



Manual Integration Results



RT: 3.08

Area: 1612

Amount: 0.006193

Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 07:46:38

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d

Injection Date: 27-Oct-2020 17:38:45

Instrument ID: LC812

Lims ID: MB 200-160391/1-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

4

Worklist Smp#: 7

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

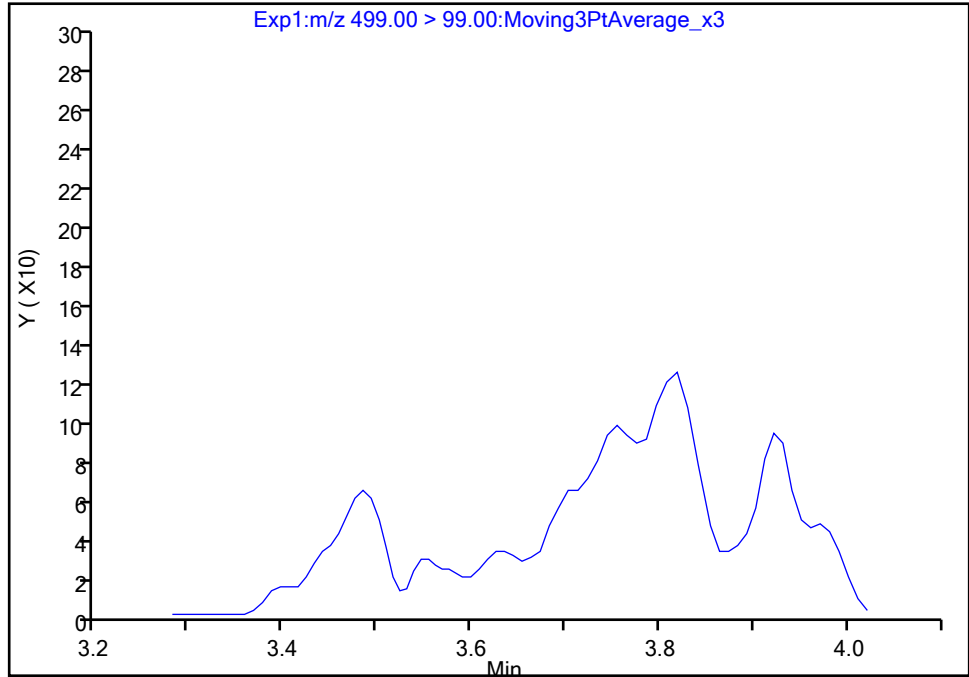
17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

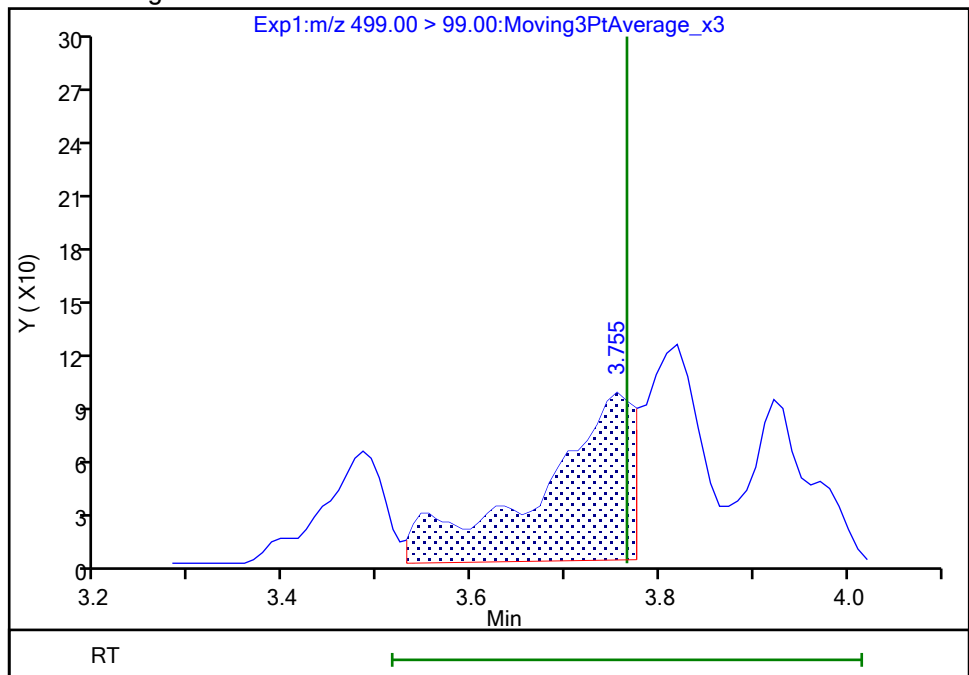
Not Detected

Expected RT: 3.77

Processing Integration Results



Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 07:48:01

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d

Injection Date: 27-Oct-2020 17:38:45

Instrument ID: LC812

Lims ID: MB 200-160391/1-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

4

Worklist Smp#: 7

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

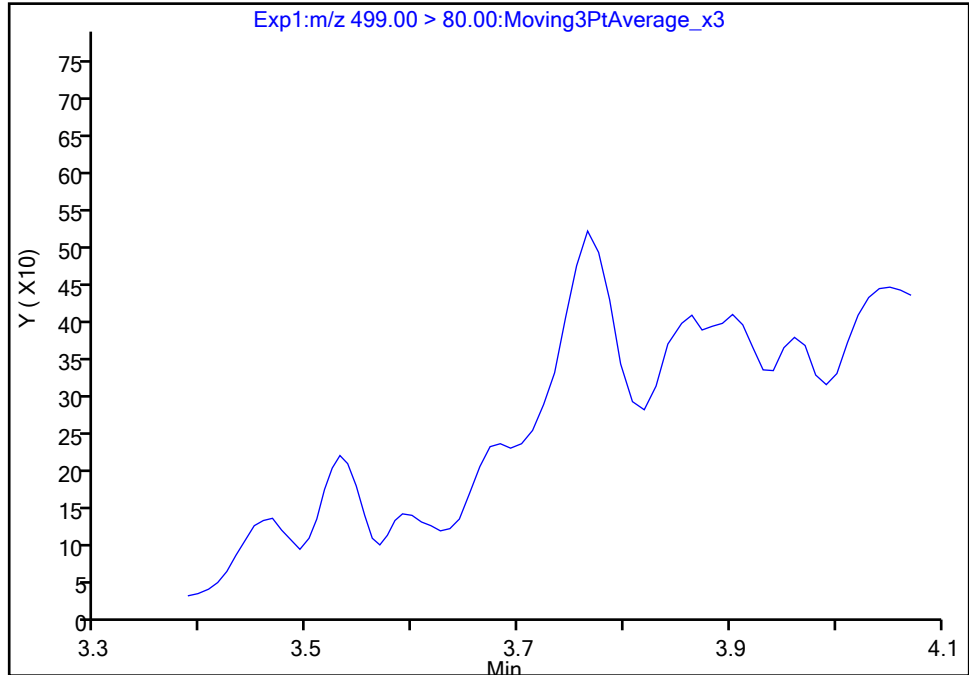
17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

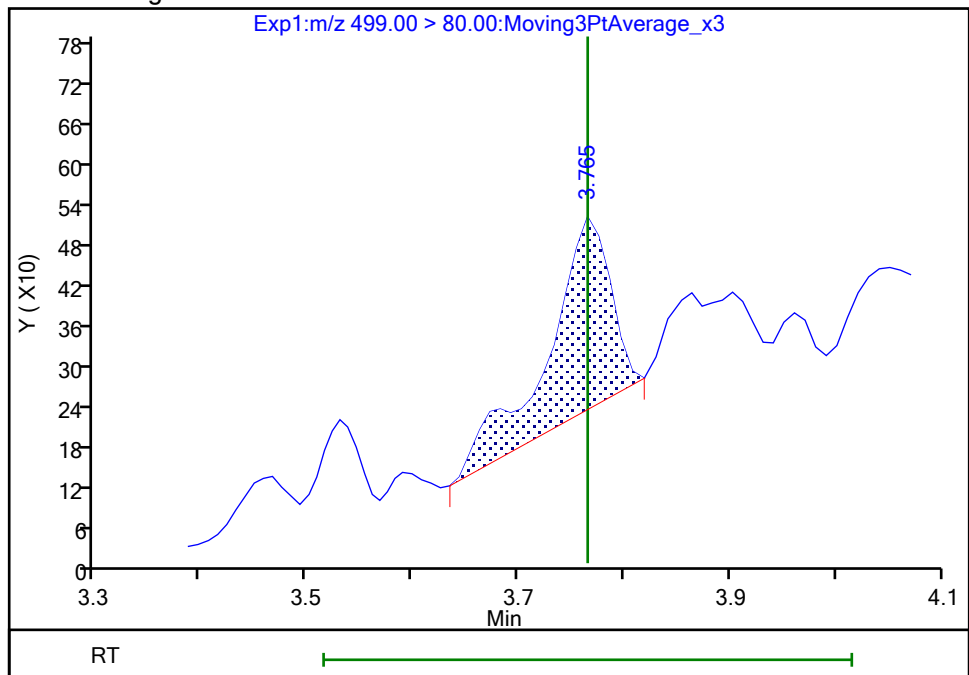
Not Detected

Expected RT: 3.77

Processing Integration Results



Manual Integration Results



RT: 3.77

Area: 1179

Amount: 0.002981

Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 07:48:13

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

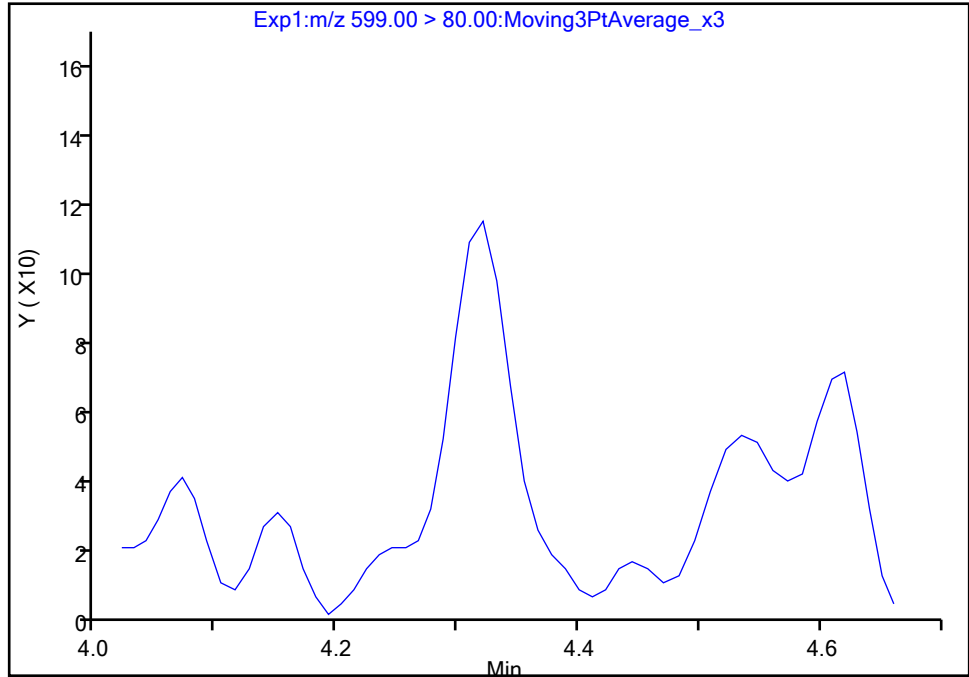
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d
Injection Date: 27-Oct-2020 17:38:45 Instrument ID: LC812
Lims ID: MB 200-160391/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

29 Perfluorodecanesulfonic acid, CAS: 335-77-3

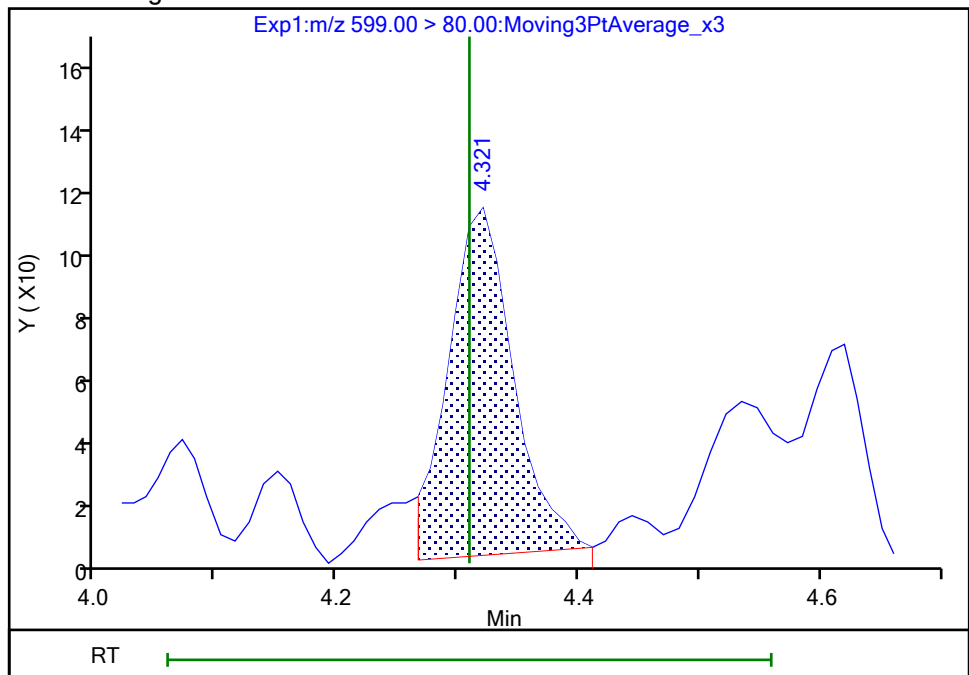
Signal: 1

Not Detected
Expected RT: 4.31

Processing Integration Results



Manual Integration Results



RT: 4.32
Area: 408
Amount: 0.001560
Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 07:49:31

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d

Injection Date: 27-Oct-2020 17:38:45

Instrument ID: LC812

Lims ID: MB 200-160391/1-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

4

Worklist Smp#: 7

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

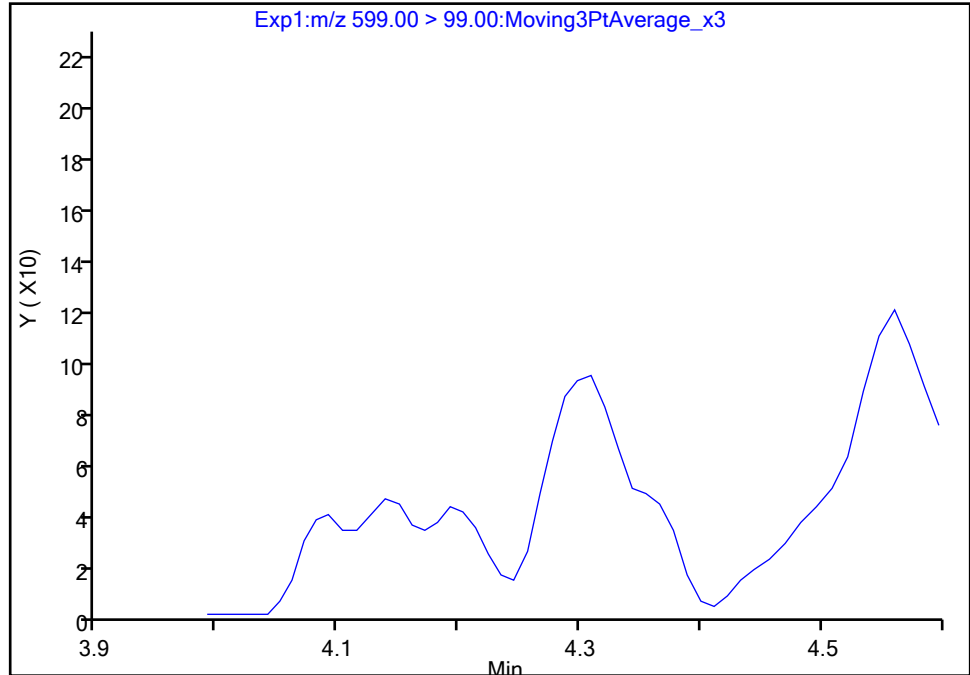
29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

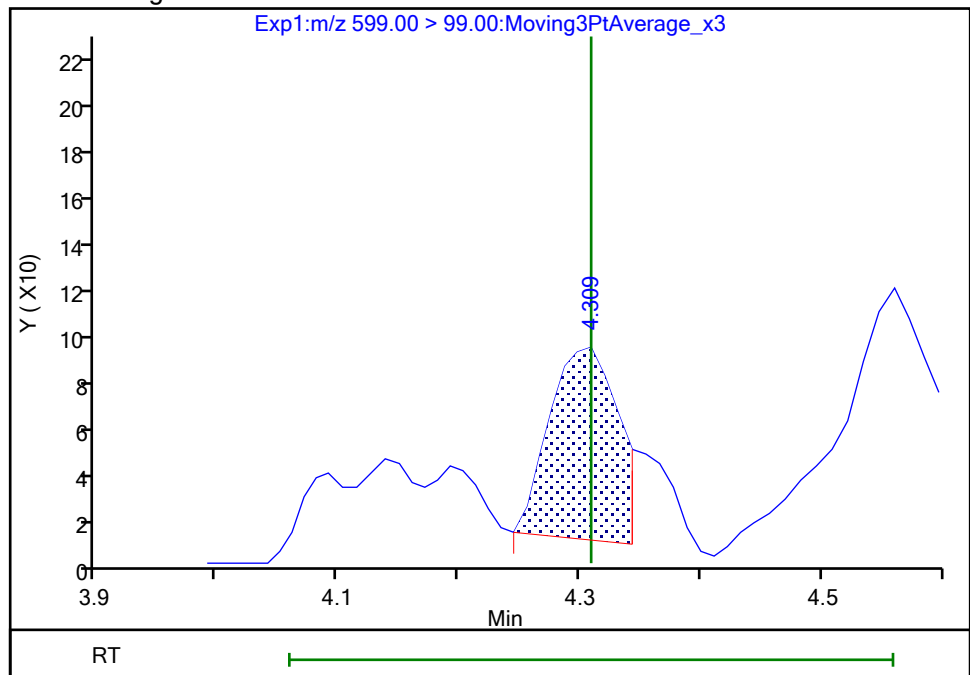
Not Detected

Expected RT: 4.31

Processing Integration Results



Manual Integration Results



RT: 4.31

Area: 312

Amount: 0.001560

Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 07:49:37

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

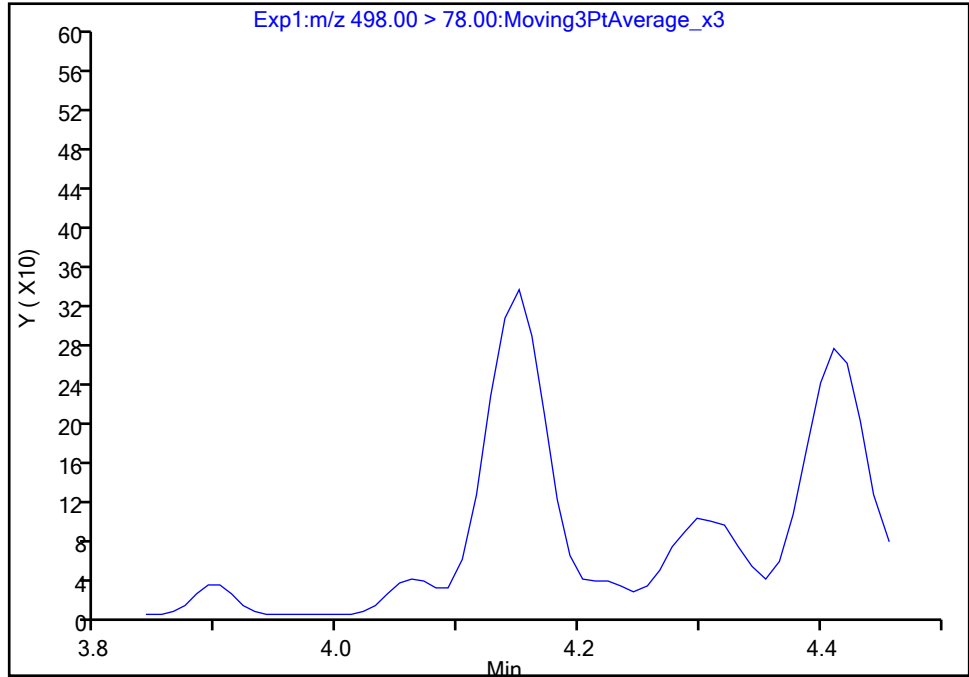
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d
Injection Date: 27-Oct-2020 17:38:45 Instrument ID: LC812
Lims ID: MB 200-160391/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

22 Perfluorooctanesulfonamide, CAS: 754-91-6

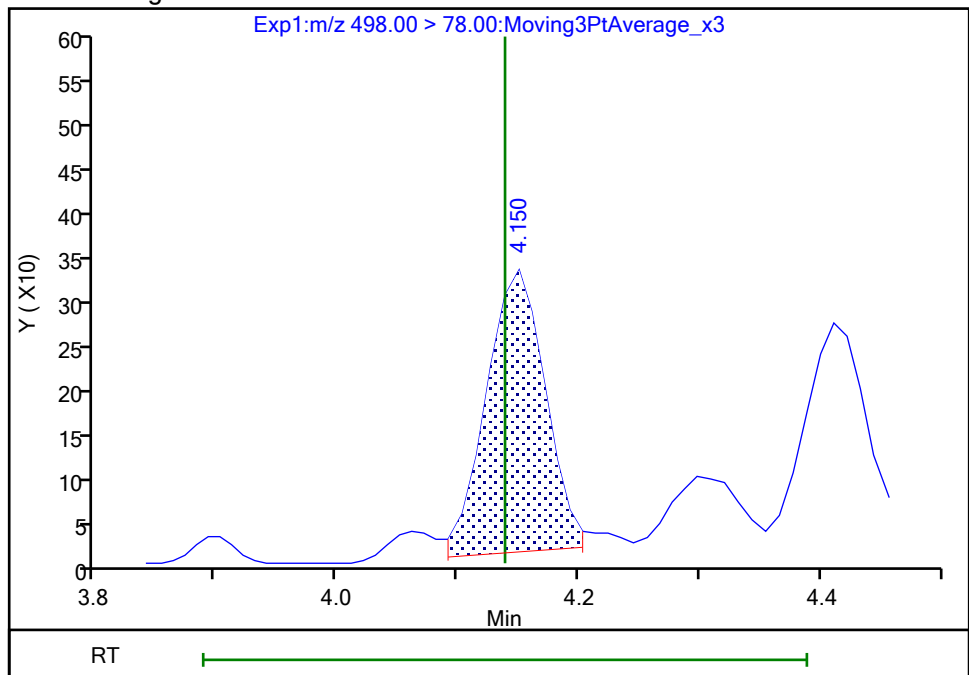
Signal: 1

Not Detected
Expected RT: 4.14

Processing Integration Results



Manual Integration Results



RT: 4.15
Area: 1073
Amount: 0.002802
Amount Units: ng/ml

Reviewer: deannd, 28-Oct-2020 10:19:43
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 776 of 906

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d

Injection Date: 27-Oct-2020 17:38:45

Instrument ID: LC812

Lims ID: MB 200-160391/1-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

4

Worklist Smp#: 7

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector: EXP1

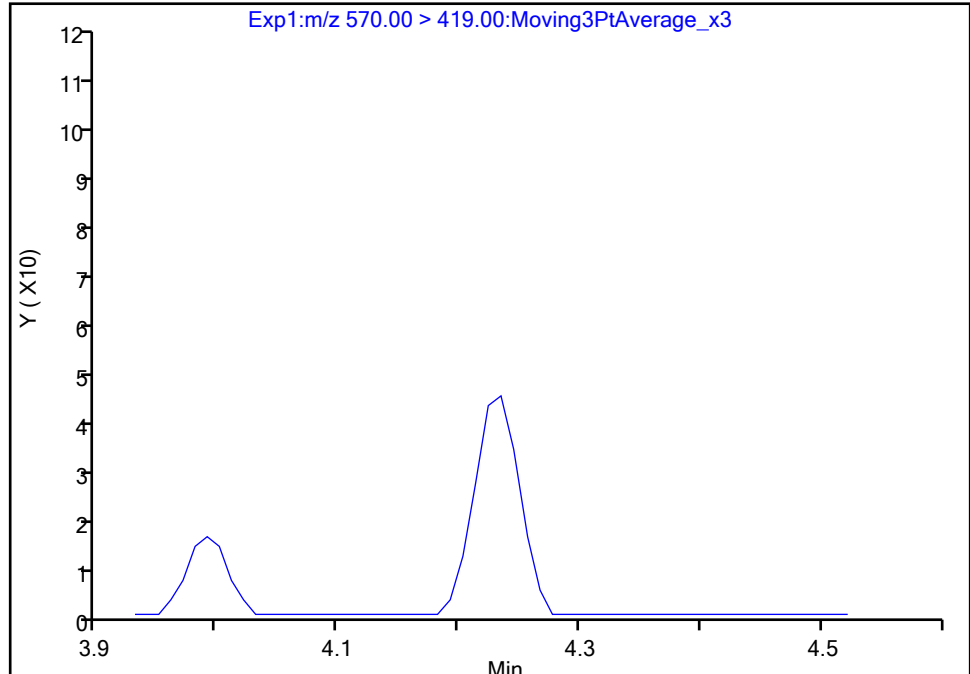
28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

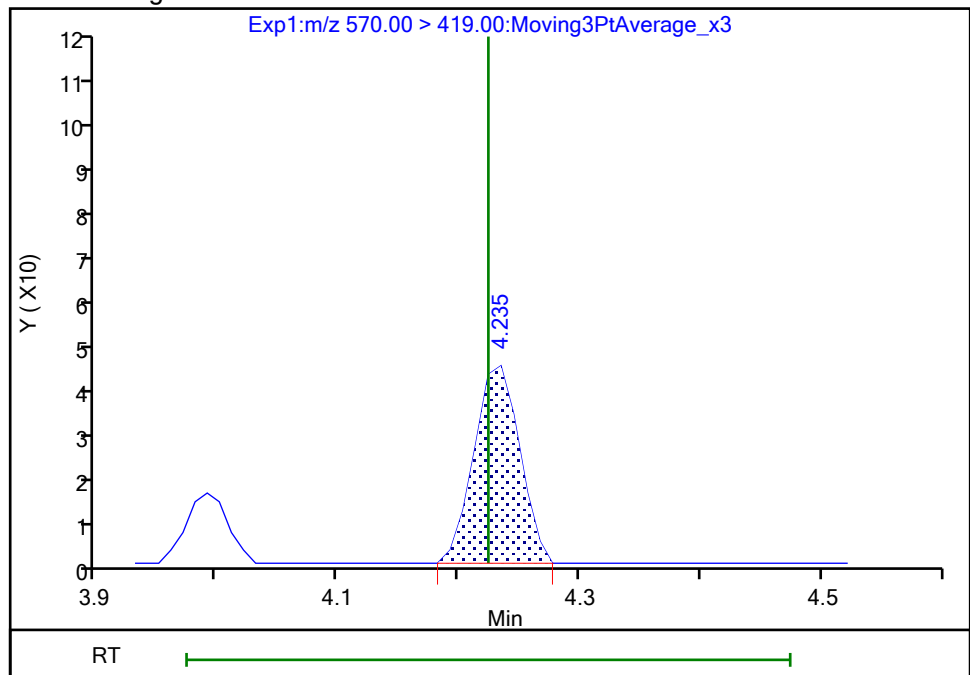
Not Detected

Expected RT: 4.22

Processing Integration Results



Manual Integration Results



RT: 4.23

Area: 118

Amount: 0.007125

Amount Units: ng/ml

Reviewer: khanphomeea, 28-Oct-2020 07:49:24

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d

Injection Date: 27-Oct-2020 17:38:45

Instrument ID: LC812

Lims ID: MB 200-160391/1-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

4

Worklist Smp#: 7

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

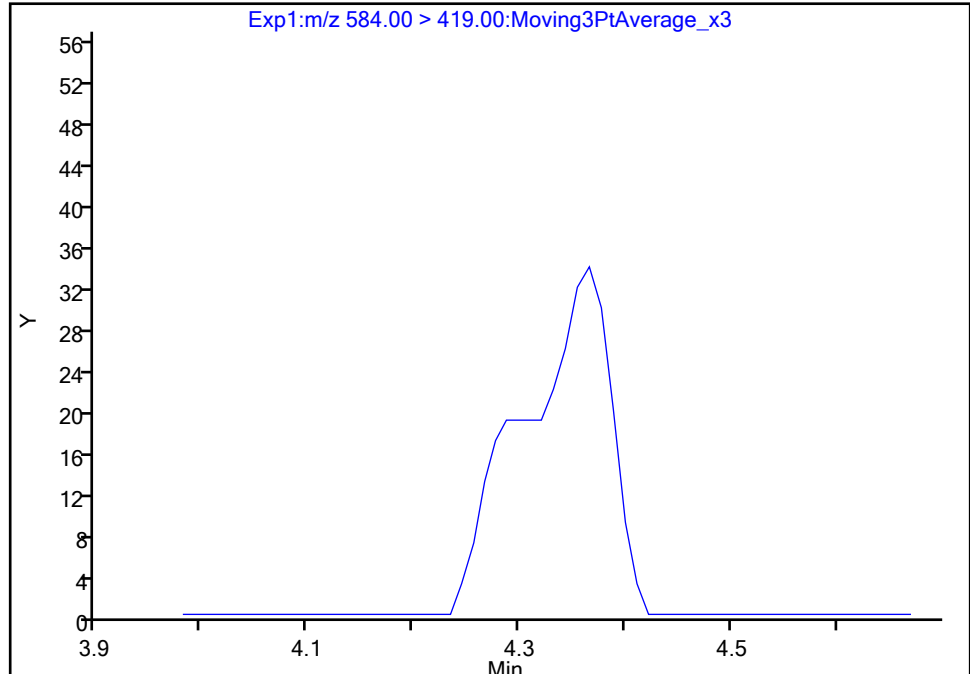
33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

Not Detected

Expected RT: 4.35

Processing Integration Results



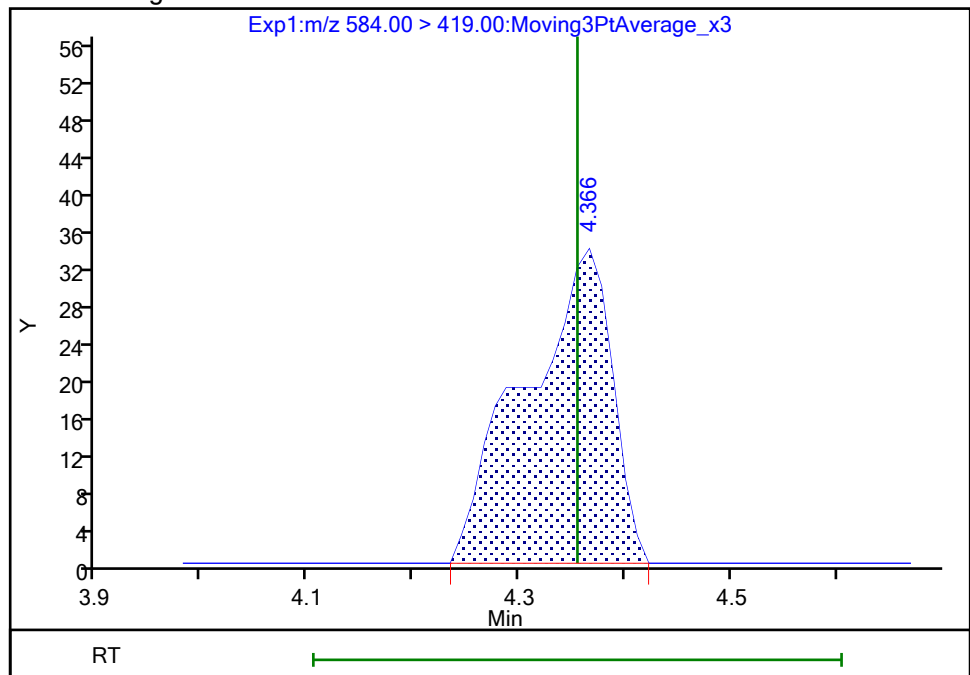
RT: 4.37

Area: 194

Amount: 0.010172

Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 07:49:58

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d

Injection Date: 27-Oct-2020 17:38:45

Instrument ID: LC812

Lims ID: MB 200-160391/1-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

4

Worklist Smp#: 7

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector: EXP1

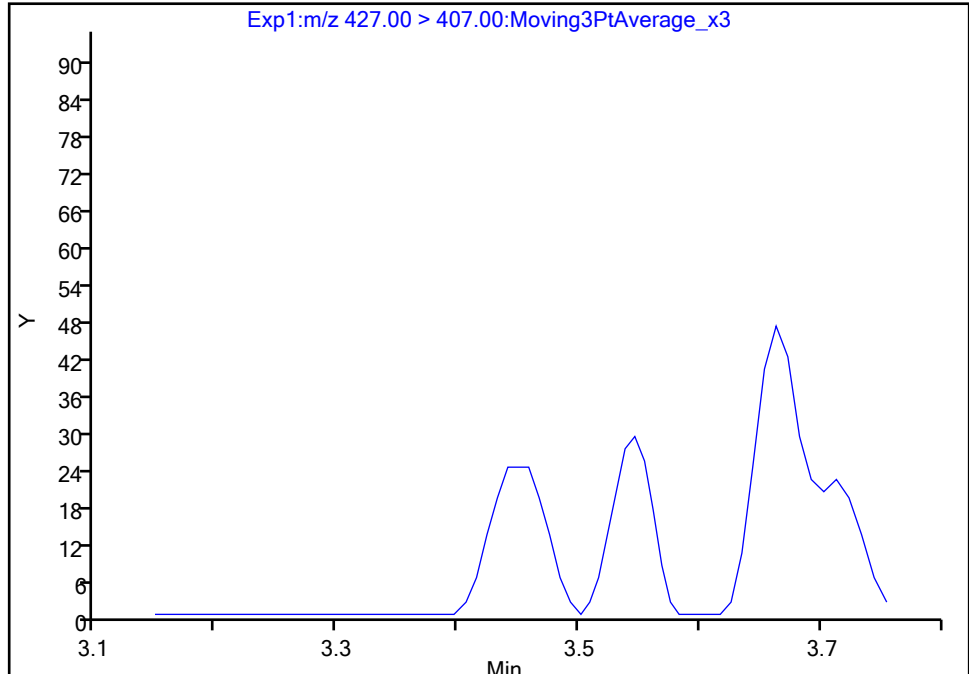
13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

Not Detected

Expected RT: 3.44

Processing Integration Results



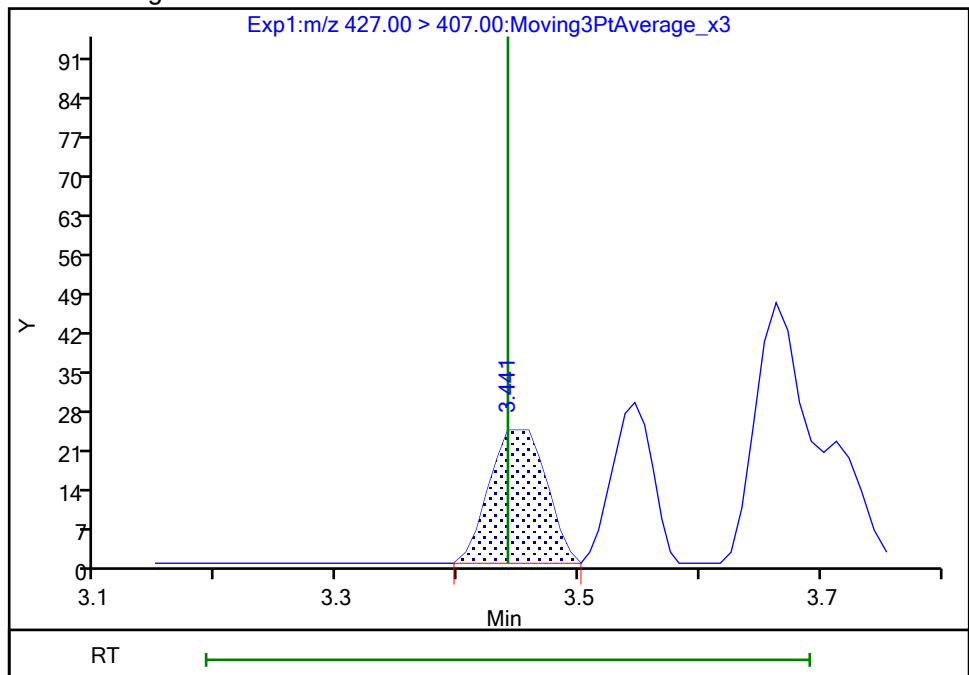
RT: 3.44

Area: 78

Amount: 0.001659

Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 07:47:30

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

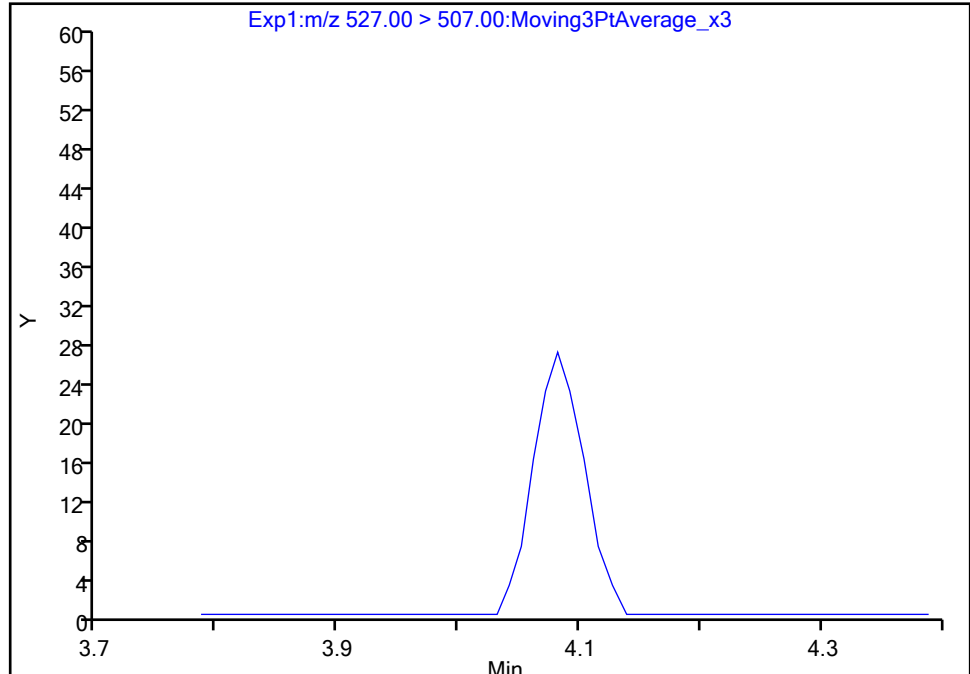
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d
Injection Date: 27-Oct-2020 17:38:45 Instrument ID: LC812
Lims ID: MB 200-160391/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

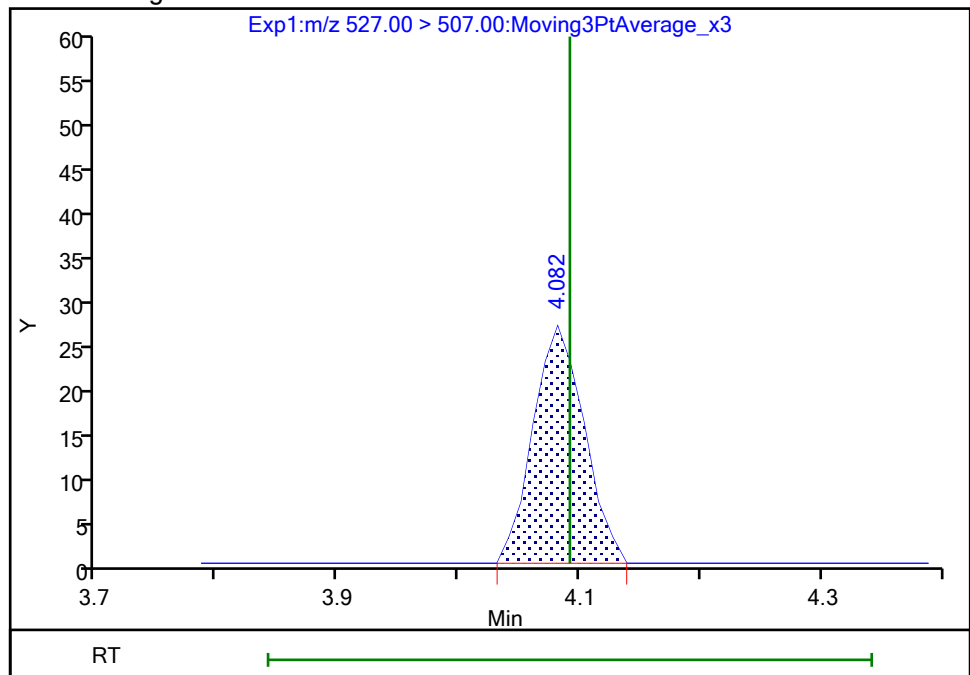
Not Detected
Expected RT: 4.09

Processing Integration Results



RT: 4.08
Area: 79
Amount: 0.002772
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 07:49:14

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A07.d

Injection Date: 27-Oct-2020 17:38:45

Instrument ID: LC812

Lims ID: MB 200-160391/1-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

4

Worklist Smp#: 7

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

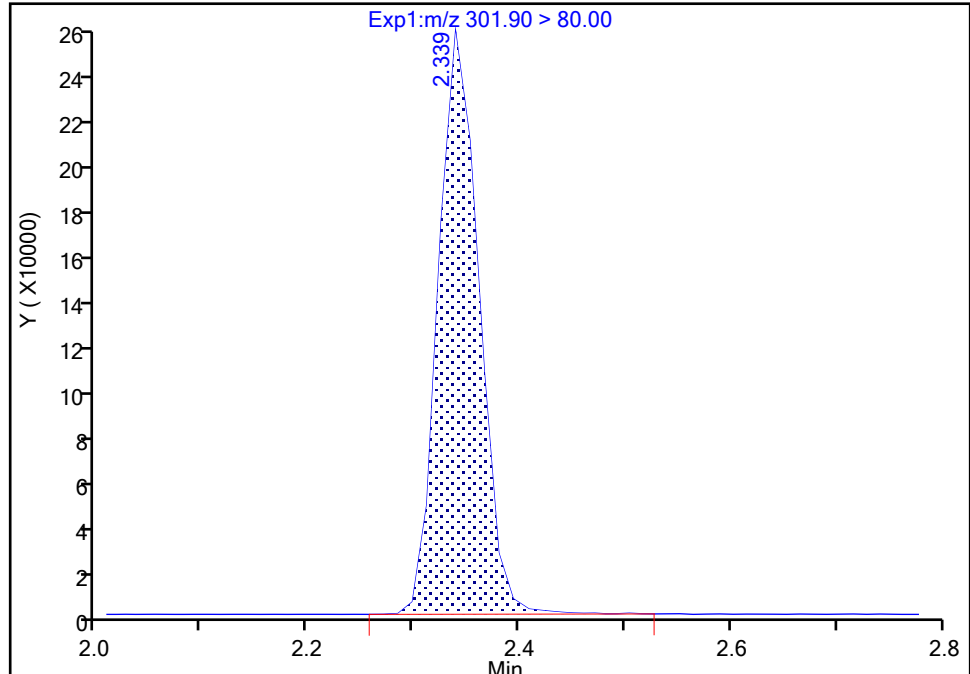
Detector: EXP1

D 47 13C3 PFBS, CAS: STL02337

Signal: 1

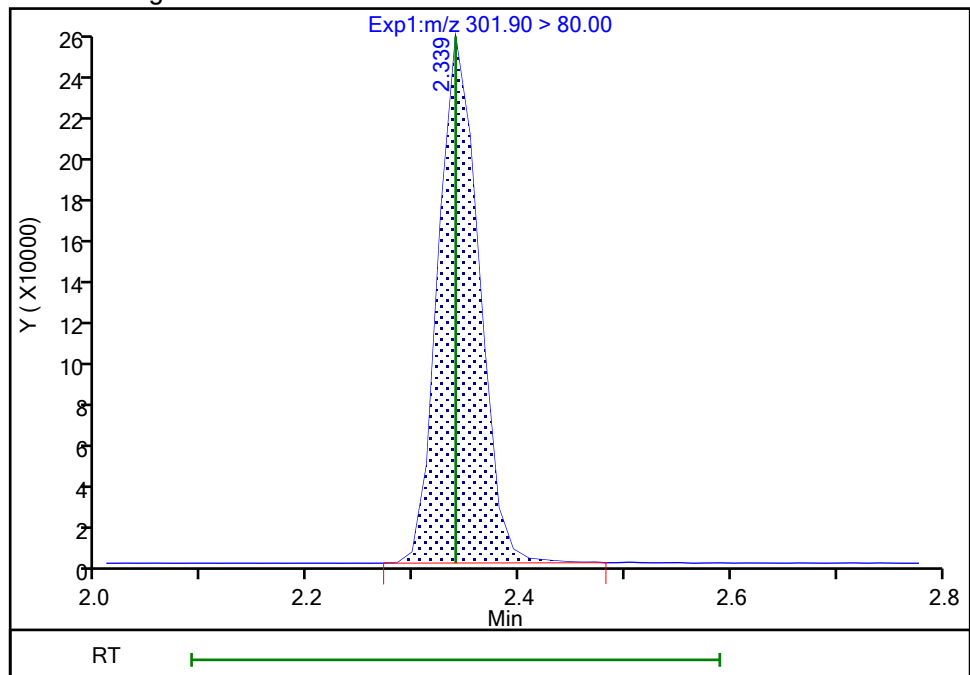
RT: 2.34
Area: 689752
Amount: 1.189555
Amount Units: ng/ml

Processing Integration Results



RT: 2.34
Area: 688586
Amount: 1.187544
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 07:44:06

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: ICB 200-159115/11

Matrix: Water Lab File ID: PA200922ICAL11.d

Analysis Method: 537 (modified) Date Collected: _____

Extraction Method: _____ Date Extracted: _____

Sample wt/vol: 1(mL) Date Analyzed: 09/22/2020 20:20

Con. Extract Vol.: _____ Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6 (mm)

% Moisture: _____ GPC Cleanup: (Y/N) N

Analysis Batch No.: 159115 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	ND		0.13	0.028
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		0.050	0.027
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		0.050	0.021
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		0.050	0.012
335-67-1	Perfluorooctanoic acid (PFOA)	ND		0.050	0.024
375-95-1	Perfluorononanoic acid (PFNA)	ND		0.050	0.015
335-76-2	Perfluorodecanoic acid (PFDA)	ND		0.050	0.012
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		0.050	0.018
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		0.050	0.012
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		0.050	0.011
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		0.050	0.015
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		0.050	0.016
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		0.050	0.017
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		0.050	0.0097
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		0.050	0.022
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		0.050	0.012
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND		0.050	0.014
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		0.13	0.020
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		0.13	0.023
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		0.13	0.018
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		0.050	0.017

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: ICB 200-159115/11
 Matrix: Water Lab File ID: PA200922ICAL11.d
 Analysis Method: 537 (modified) Date Collected: _____
 Extraction Method: _____ Date Extracted: _____
 Sample wt/vol: 1(mL) Date Analyzed: 09/22/2020 20:20
 Con. Extract Vol.: _____ Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: C-18 ID: 4.6 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 159115 Units: ng/mL

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	71		50-150
STL01892	13C4 PFHpA	75		50-150
STL00990	13C4 PFOA	76		50-150
STL00991	13C4 PFOS	73		50-150
STL00995	13C5 PFNA	73		50-150
STL00992	13C4 PFBA	75		25-150
STL00993	13C2 PFHxA	74		50-150
STL00996	13C2 PFDA	71		50-150
STL00997	13C2 PFUnA	69		50-150
STL00998	13C2 PFDoA	73		50-150
STL01056	13C8 FOSA	74		25-150
STL01893	13C5 PFPeA	77		25-150
STL02116	13C2 PFTeDA	73		50-150
STL02118	d3-NMeFOSAA	69		50-150
STL02117	d5-NEtFOSAA	74		50-150
STL02279	M2-6:2 FTS	68		25-150
STL02280	M2-8:2 FTS	74		25-150
STL02337	13C3 PFBS	73		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d
 Lims ID: ICB
 Client ID:
 Sample Type: ICB
 Inject. Date: 22-Sep-2020 20:20:13 ALS Bottle#: 8 Worklist Smp#: 11
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: ICB
 Misc. Info.: 200-0042904-011 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Method: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 23-Sep-2020 10:27:14 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1050

First Level Reviewer: chirgwinb

Date: 23-Sep-2020 10:14:44

Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	2.000	1.990	0.010	0.577	1019038	0.9393		75.1	6958	
2 Perfluorobutanoic acid										M
212.90 > 169.00	2.000	2.000	0.0	1.000	9311	0.0122		0.9		M
D 3 13C5 PFPeA										
267.90 > 223.00	2.340	2.339	0.001	0.675	744121	0.9570		76.6	3612	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.340	2.339	0.001	1.000	5683	0.009040		0.4		M
D 47 13C3 PFBS										
301.90 > 80.00	2.367	2.353	0.014	0.683	803027	0.8480		72.9	3917	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.367	2.353	0.014	1.000	3605	0.005238	Target=2.07	12.9		
298.90 > 99.00	2.353	2.353	0.0	0.994	1883		1.91(1.04-3.11)	3.5		
61 1H,1H,2H,2H-perfluorohexanesulfo										M
327.00 > 307.00	2.678	2.678	0.0	1.000	529	0.006207		15.1		M
D 60 M2-4:2 FTS										
329.00 > 81.00	2.678	2.678	0.0	0.772	61573	0.8657		74.1	178	
D 7 13C2 PFHxA										
315.00 > 270.00	2.716	2.716	0.0	0.783	740493	0.9248		74.0	3320	
6 Perfluorohexanoic acid										M
313.00 > 269.00	2.716	2.716	0.0	1.000	5156	0.008644	Target=12.44	2.0		M
313.00 > 119.00	2.704	2.716	-0.012	0.995	458		11.26(6.22-18.66)	1.4		M
70 Perfluoropentanesulfonic acid										M
349.00 > 80.00	2.716	2.716	0.0	0.877	2651	0.004616	Target=3.64	15.4		
349.00 > 99.00	2.716	2.716	0.0	0.877	792		3.35(1.82-5.46)	4.7		M
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.819	2.818	0.001	0.813	61187	0.8201		65.6	950	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 11 18O2 PFHxS										
403.00 > 84.00	3.096	3.084	0.012	0.893	573530	0.8442		71.4	2046	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.096	3.096	0.0	1.000	5134	0.009585	Target=4.60		18.8	M
399.00 > 99.00	3.085	3.096	-0.011	0.996	986		5.21(2.30-6.91)		2.6	M
10 Perfluoroheptanoic acid										M
363.00 > 319.00	3.096	3.096	0.0	1.000	3739	0.006821	Target=3.34		2.5	M
363.00 > 169.00	3.096	3.096	0.0	1.000	755		4.95(1.67-5.01)		4.2	M
D 9 13C4 PFHpA										
367.00 > 322.00	3.096	3.096	0.0	0.893	683792	0.9388		75.1	4300	
77 DONA										
377.00 > 251.00	3.140	3.132	0.008	0.831	6603	0.005279	Target=2.44		19.7	
377.00 > 85.00	3.132	3.132	0.0	0.829	2786		2.37(1.22-3.67)		6.3	
16 Perfluoroheptanesulfonic acid										M
449.00 > 80.00	3.450	3.450	0.0	0.914	1674	0.003559	Target=7.08		25.8	M
449.00 > 99.00	3.450	3.450	0.0	0.914	407		4.11(3.54-10.63)		5.0	M
D 12 M2-6:2 FTS										
429.00 > 81.00	3.459	3.450	0.009	0.998	73270	0.8069		67.9	629	
13 1H,1H,2H,2H-perfluorooctanesulfo										M
427.00 > 407.00	3.450	3.450	0.0	0.997	226	0.004590			8.0	M
D 14 13C4 PFOA										
417.00 > 372.00	3.467	3.458	0.009	1.000	704495	0.9452		75.6	4007	
* 62 13C2 PFOA										
415.00 > 370.00	3.467	3.458	0.009		946396	1.25			2754	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.467	3.458	0.009	1.000	4125	0.007089	Target=2.29		1.8	M
413.00 > 169.00	3.459	3.458	0.001	0.998	1344		3.07(1.14-3.43)		6.5	M
D 18 13C4 PFOS										
503.00 > 80.00	3.776	3.776	0.0	1.089	485153	0.8729		73.0	2365	
17 Perfluorooctanesulfonic acid										RMa
499.00 > 80.00	3.776	3.776	0.0	1.000	2224	0.005041	Target=7.10		6.7	Ra
499.00 > 99.00	3.786	3.776	0.010	1.003	900		2.47(3.55-10.64)		4.6	
D 19 13C5 PFNA										
468.00 > 423.00	3.797	3.797	0.0	1.095	575052	0.9155		73.2	5671	
20 Perfluorononanoic acid										M
463.00 > 419.00	3.808	3.797	0.011	1.003	4298	0.009174	Target=5.83		1.6	M
463.00 > 169.00	3.797	3.797	0.0	1.000	538		7.99(2.91-8.74)		8.2	M
69 9-Chlorohexadecafluoro-3-oxanona										M
531.00 > 351.00	3.941	3.941	0.0	1.044	1348	0.003472			23.6	M
68 Perfluorononanesulfonic acid										M
549.00 > 80.00	4.072	4.072	0.0	1.078	1246	0.003574	Target=3.38		21.9	
549.00 > 99.00	4.072	4.072	0.0	1.078	512		2.43(1.69-5.08)		3.7	M
24 Perfluorodecanoic acid										M
513.00 > 469.00	4.092	4.092	0.0	1.000	1988	0.004688	Target=6.81		4.0	M
513.00 > 169.00	4.092	4.092	0.0	1.000	373		5.33(3.41-10.22)		7.1	M
D 23 13C2 PFDA										
515.00 > 470.00	4.092	4.092	0.0	1.180	535722	0.8894		71.2	4415	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
25 1H,1H,2H,2H-perfluorodecanesulfo										M
527.00 > 507.00	4.104	4.103	0.001	1.000	166	0.005303			5.0	M
D 26 M2-8:2 FTS										
529.00 > 81.00	4.104	4.103	0.001	1.184	94705	0.8855		73.9	1152	
D 21 13C8 FOSA										
506.00 > 78.00	4.151	4.151	0.0	1.197	892854	0.9198		73.6	2467	
22 Perfluorooctanesulfonamide										M
498.00 > 78.00	4.161	4.151	0.010	1.003	2826	0.004232			9.7	M
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.245	4.235	0.010	1.224	29744	0.8673		69.4	657	
28 N-methylperfluorooctanesulfonami										M
570.00 > 419.00	4.257	4.245	0.012	1.003	435	0.0194			4.5	M
29 Perfluorodecanesulfonic acid										M
599.00 > 80.00	4.344	4.332	0.012	1.150	784	0.002687	Target=3.31		10.0	M
599.00 > 99.00	4.332	4.332	0.0	1.147	283		2.77(1.66-4.97)		4.4	M
D 30 13C2 PFUnA										
565.00 > 520.00	4.366	4.355	0.011	1.259	394167	0.8668		69.3	3005	
31 Perfluoroundecanoic acid										M
563.00 > 519.00	4.366	4.355	0.011	1.000	3805	0.0122	Target=6.57		4.1	M
563.00 > 169.00	4.355	4.355	0.0	0.997	672		5.66(3.28-9.85)		17.1	M
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.366	4.366	0.0	1.259	34141	0.9261		74.1	441	
33 N-ethylperfluorooctanesulfonamid										M
584.00 > 419.00	4.389	4.378	0.011	1.005	426	0.0170			7.2	M
66 11-Chloroeicosafuoro-3-oxaundec										M
631.00 > 451.00	4.457	4.444	0.013	1.180	1232	0.003679			30.3	M
D 36 13C2 PFDoA										
615.00 > 570.00	4.598	4.585	0.013	1.326	440936	0.9175		73.4	4616	
37 Perfluorododecanoic acid										M
613.00 > 569.00	4.585	4.585	0.0	0.997	1465	0.004259	Target=5.16		1.2	
613.00 > 169.00	4.585	4.585	0.0	0.997	324		4.52(2.58-7.75)		9.0	M
74 1H,1H,2H,2H-perfluorododecanesul										M
627.00 > 607.00	4.598	4.610	-0.012	1.120	138	0.007934			6.1	M
75 Perfluorododecanesulfonic acid (										RM
699.00 > 80.00	4.754	4.763	-0.009	1.259	1256	0.0134	Target=0.45		2.5	RM
699.00 > 99.00	4.762	4.763	-0.001	1.261	758		1.66(0.22-0.67)		13.7	M
41 Perfluorotridecanoic acid										M
663.00 > 619.00	4.814	4.802	0.012	1.047	1702	0.005826	Target=3.30		1.0	
663.00 > 169.00	4.802	4.802	0.0	1.044	578		2.94(1.65-4.95)		13.3	M
D 43 13C2 PFTeDA										
715.00 > 670.00	4.997	4.998	-0.001	1.441	313602	0.9161		73.3	4351	
42 Perfluorotetradecanoic acid										M
713.00 > 169.00	4.997	4.998	-0.001	1.000	308	0.005360	Target=1.06		10.1	M
713.00 > 219.00	5.007	4.998	0.009	1.002	435		0.71(0.53-1.59)		16.8	M
D 44 13C2 PFHxDA										
815.00 > 770.00	5.372	5.361	0.011	1.549	338041	0.8713		69.7	3426	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.372	5.372	0.0	1.000	4512	-0.004222	Target=3.06		4.1	
813.00 > 169.00	5.372	5.372	0.0	1.000	1380		3.27(1.53-4.58)		44.0	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.755	5.756	-0.001	1.071	1363	0.006744	Target=2.82		1.9	M
913.00 > 169.00	5.755	5.756	-0.001	1.071	545		2.50(1.41-4.24)		13.2	M

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

PFAS32NCBLK20_00005

Amount Added: 100.00

Units: uL

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d

Injection Date: 22-Sep-2020 20:20:13

Instrument ID: LC812

Lims ID: ICB

Client ID:

Operator ID: lc812tech

ALS Bottle#: 8

Worklist Smp#: 11

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

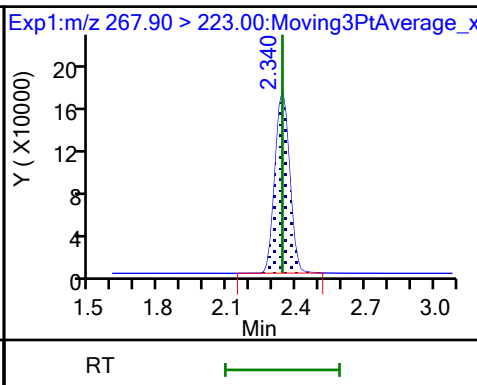
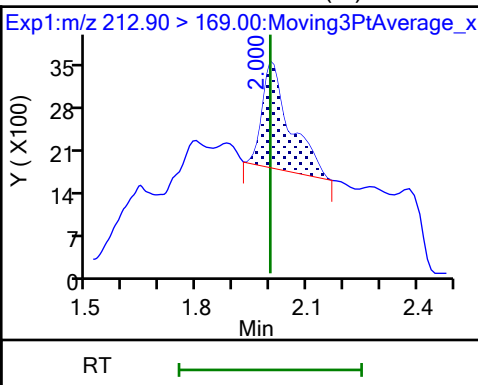
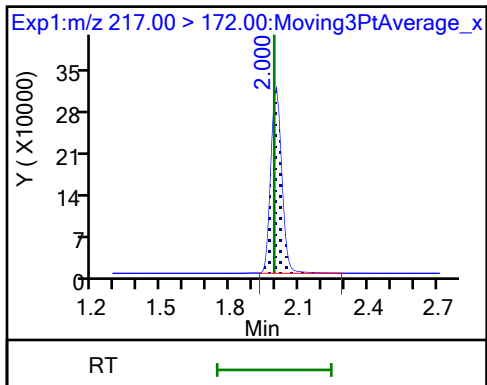
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid (M)

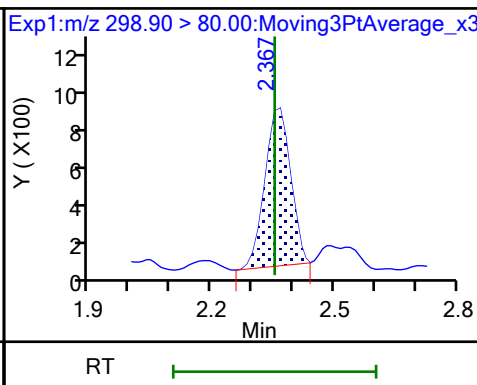
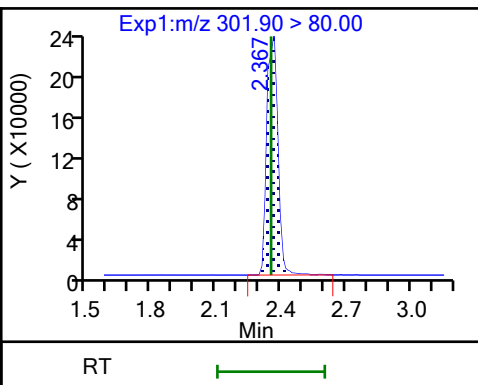
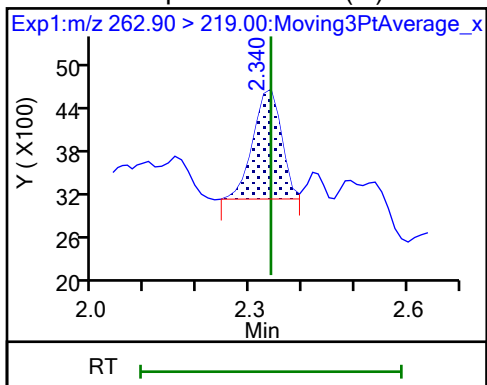
D 3 13C5 PFPeA



4 Perfluoropentanoic acid (M)

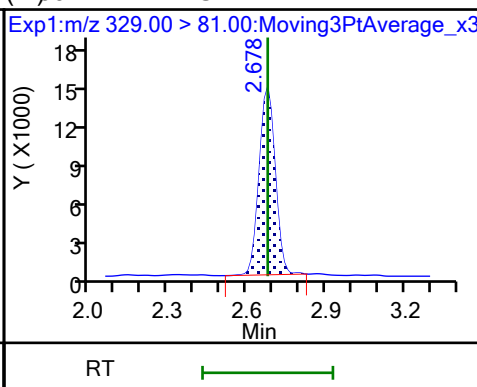
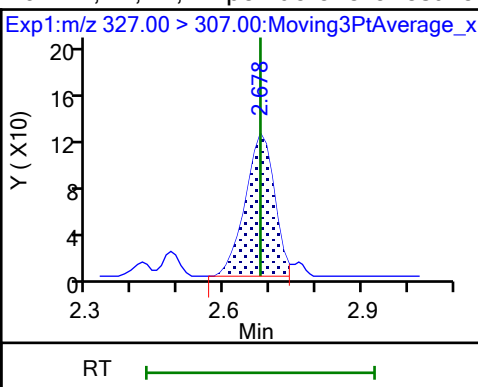
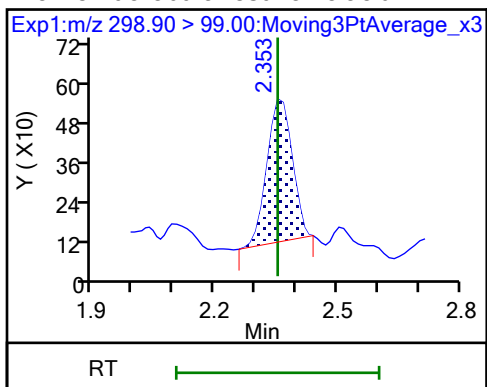
D 47 13C3 PFBS

5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

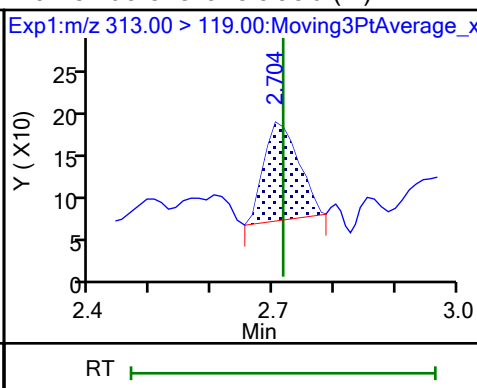
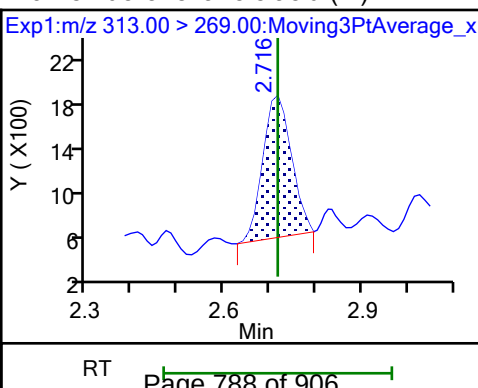
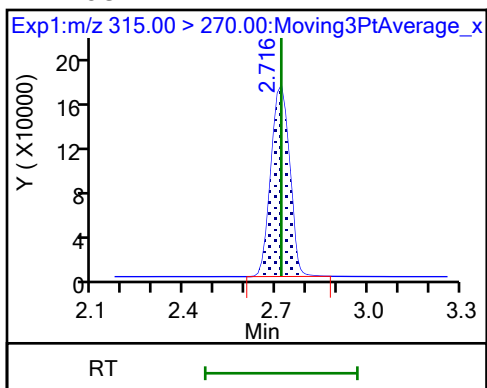
61 1H,1H,2H,2H-perfluorohexanesulfo (M) 50 M2-4:2 FTS



D 7 13C2 PFHxA

6 Perfluorohexanoic acid (M)

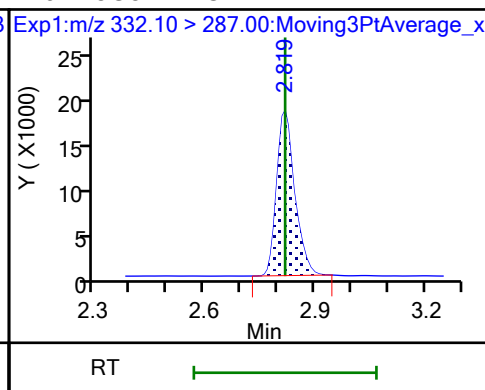
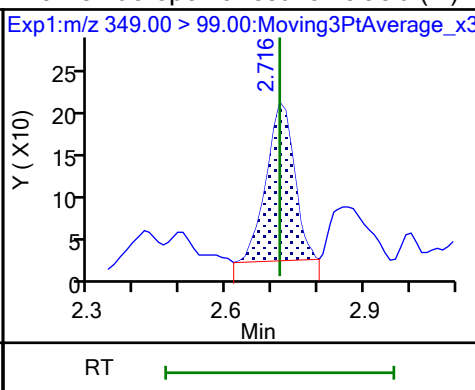
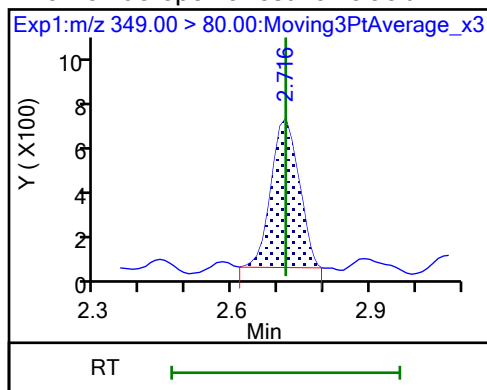
6 Perfluorohexanoic acid (M)



70 Perfluoropentanesulfonic acid

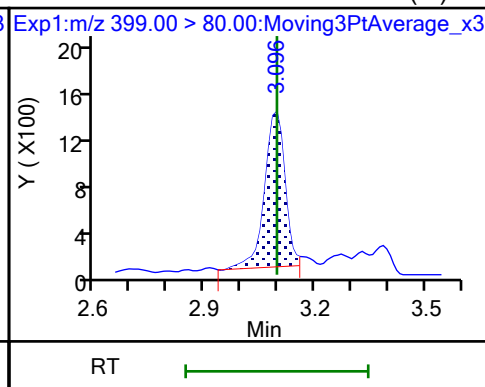
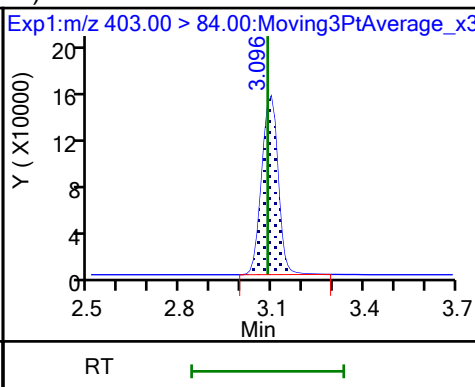
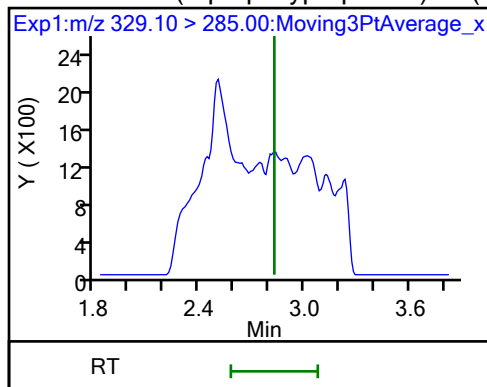
70 Perfluoropentanesulfonic acid (M)

D 64 13C3 HFPO-DA



67 Perfluoro(2-propoxypropanoic) ac (ND)11 18O2 PFHxS

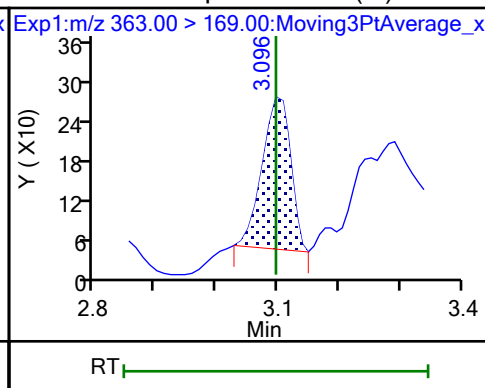
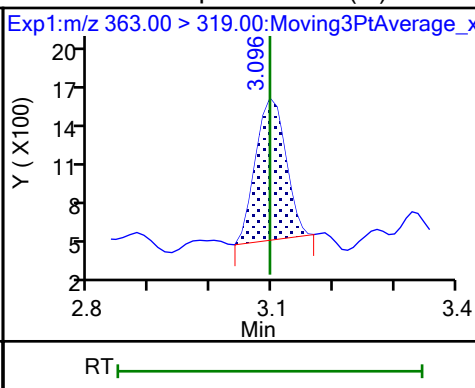
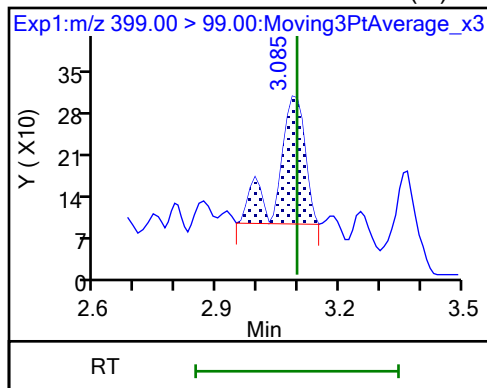
8 Perfluorohexanesulfonic acid (M)



8 Perfluorohexanesulfonic acid (M)

10 Perfluoroheptanoic acid (M)

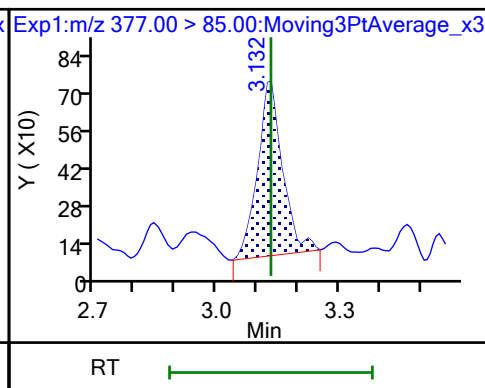
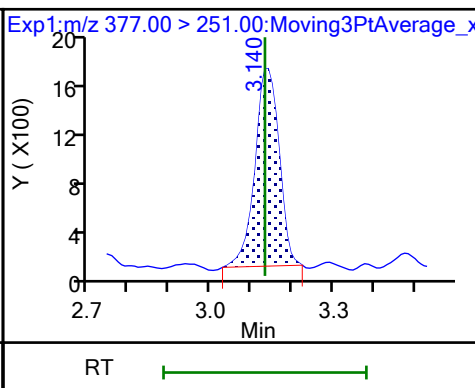
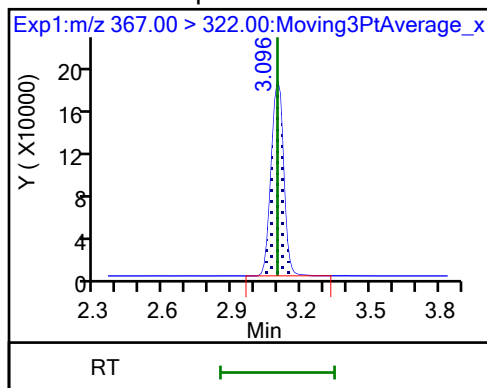
10 Perfluoroheptanoic acid (M)



D 9 13C4 PFHpA

77 DONA

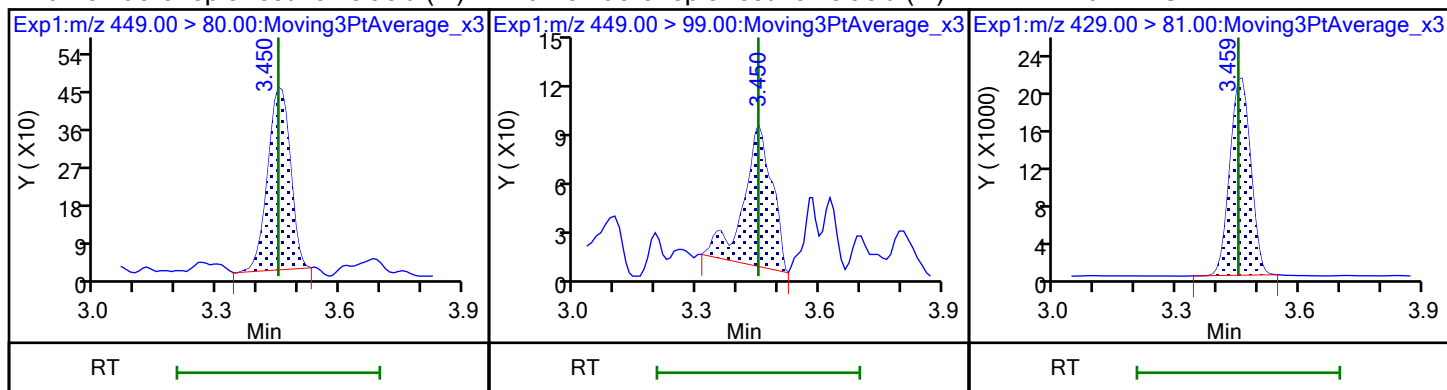
77 DONA



16 Perfluoroheptanesulfonic acid (M)

16 Perfluoroheptanesulfonic acid (M)

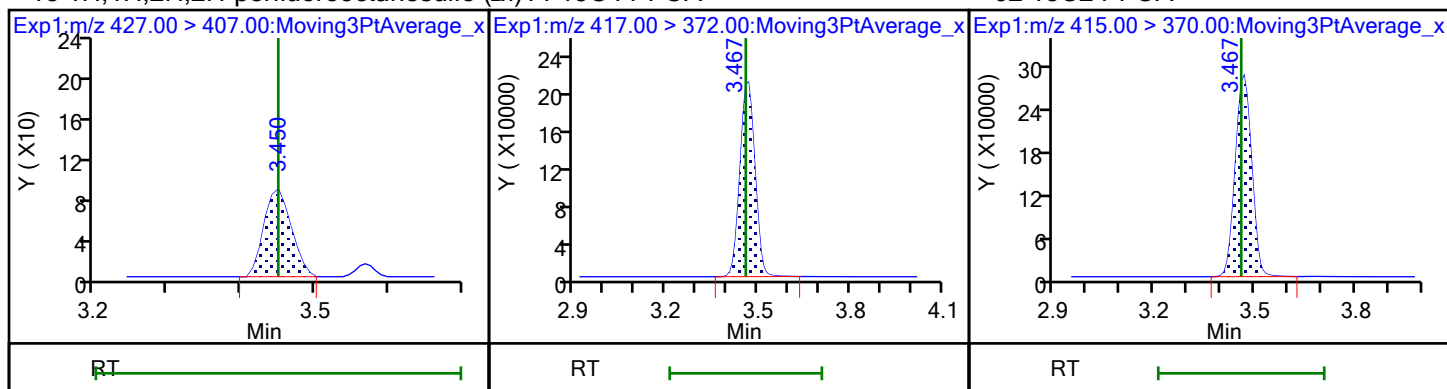
D 12 M2-6:2 FTS



13 1H,1H,2H,2H-perfluorooctanesulfo (M)

14 13C4 PFOA

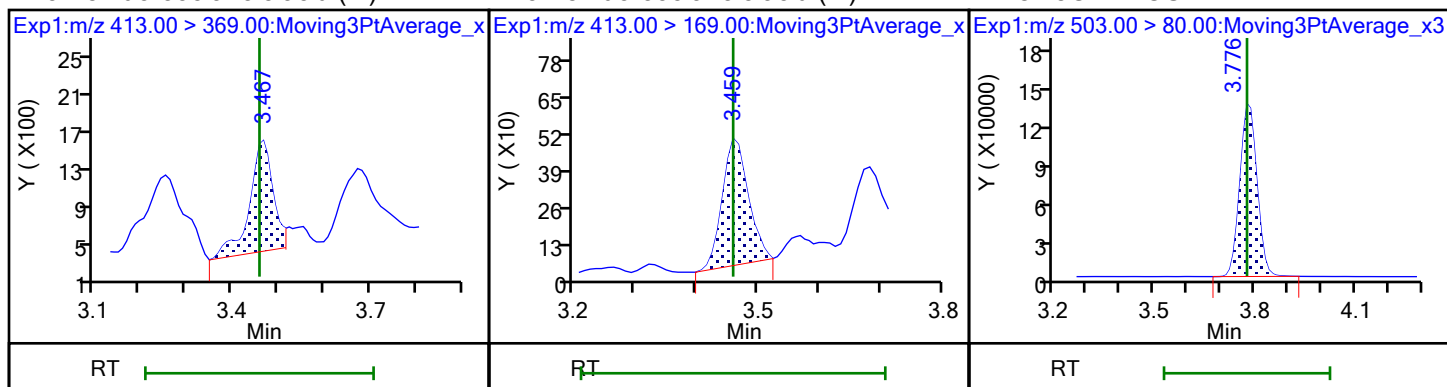
* 62 13C2 PFOA



15 Perfluorooctanoic acid (M)

15 Perfluorooctanoic acid (M)

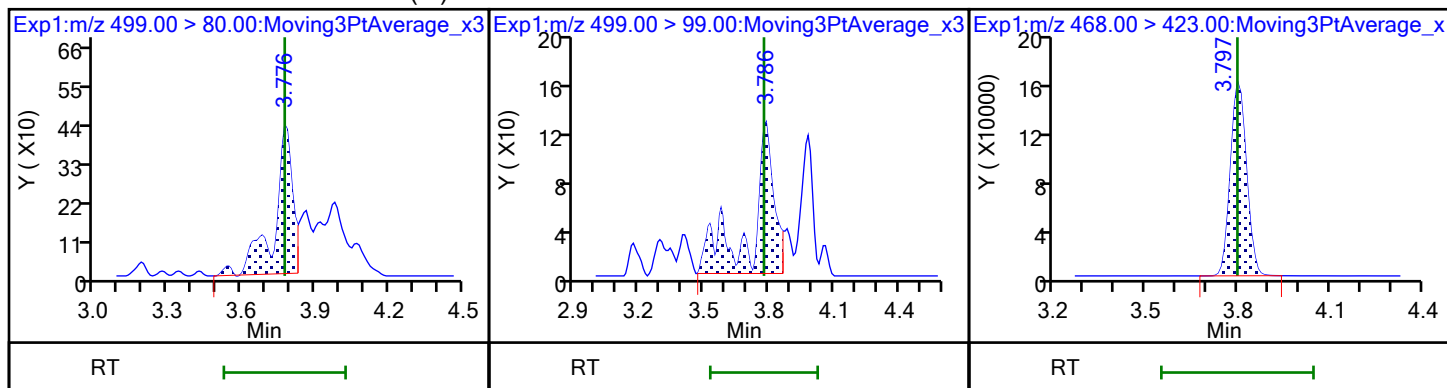
D 18 13C4 PFOS

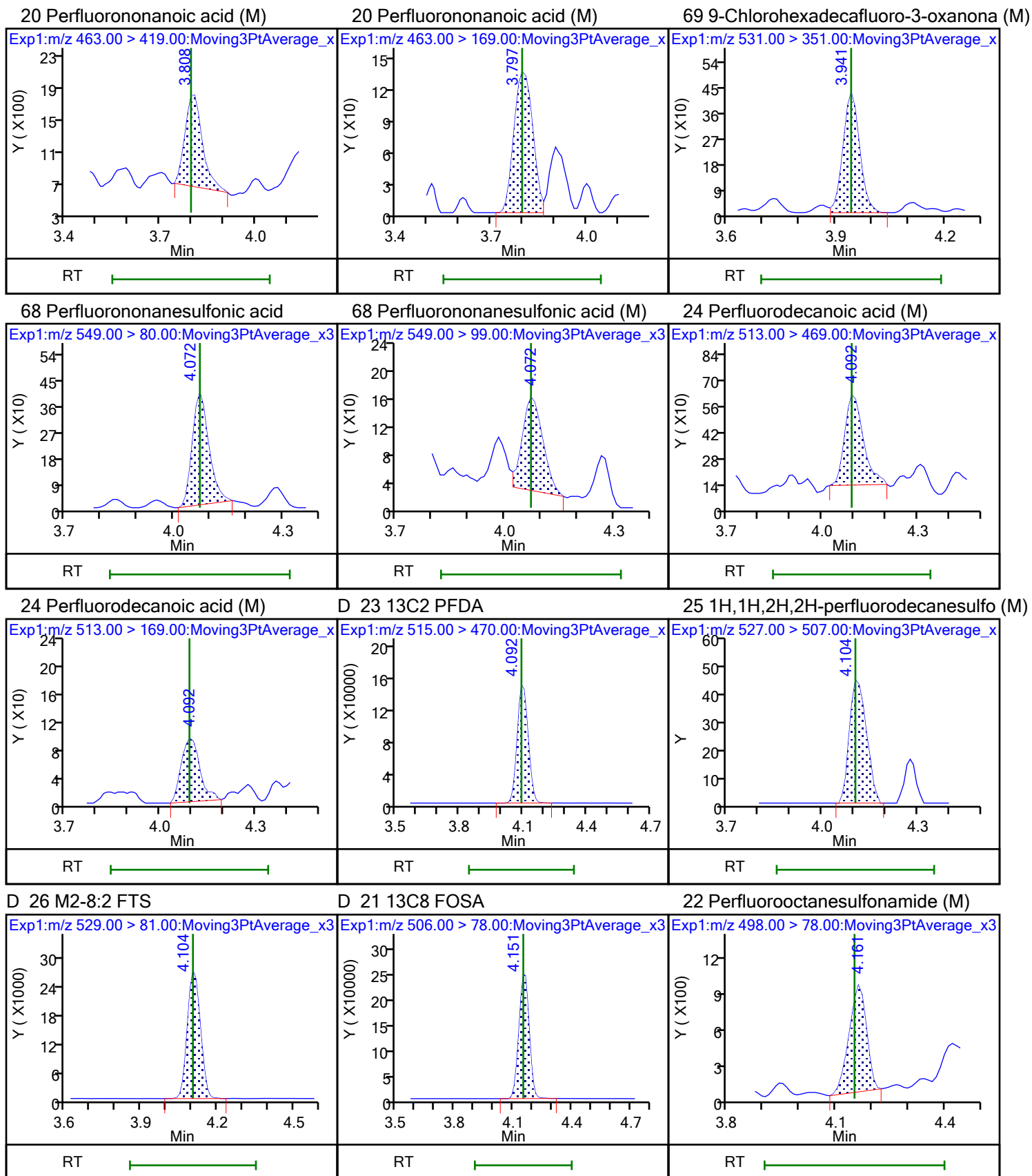


17 Perfluorooctanesulfonic acid (M)

17 Perfluorooctanesulfonic acid

D 19 13C5 PFNA

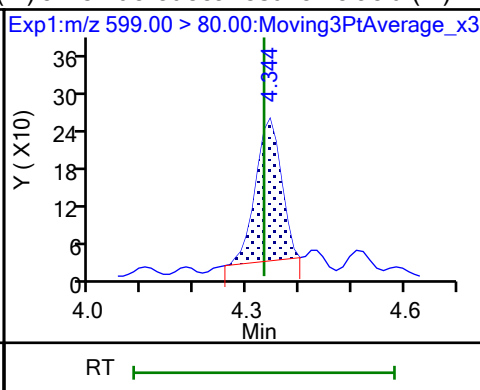
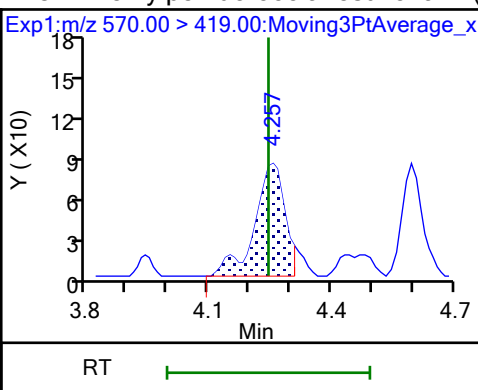
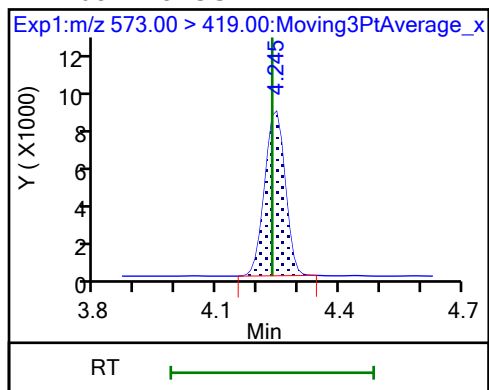




D 27 d3-NMeFOSAA

28 N-methylperfluorooctanesulfonami (M)

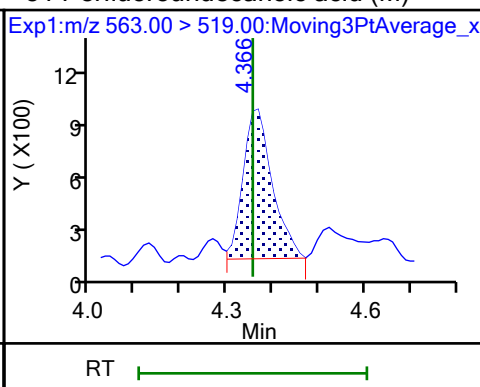
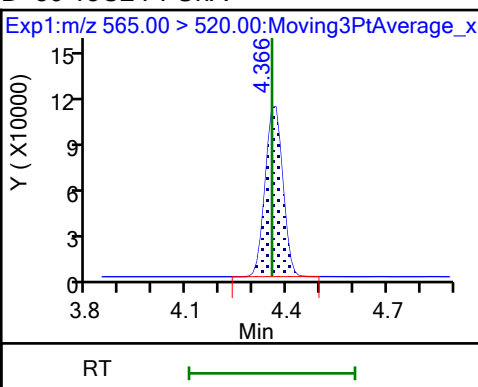
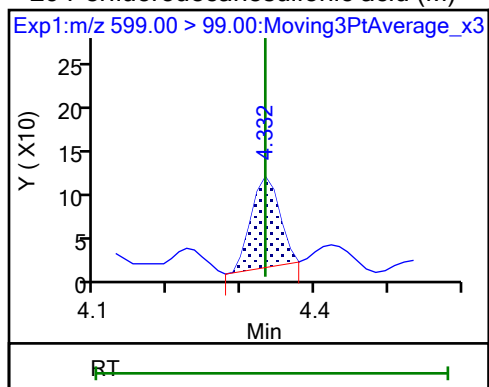
29 Perfluorodecanesulfonic acid (M)



29 Perfluorodecanesulfonic acid (M)

D 30 13C2 PFUnA

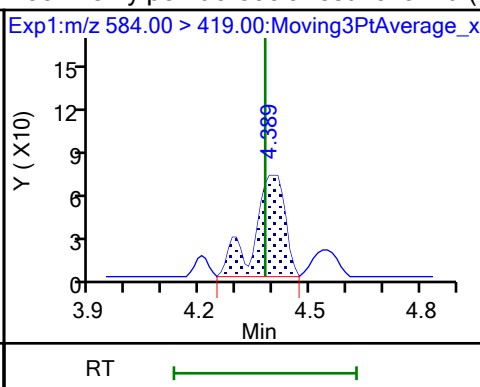
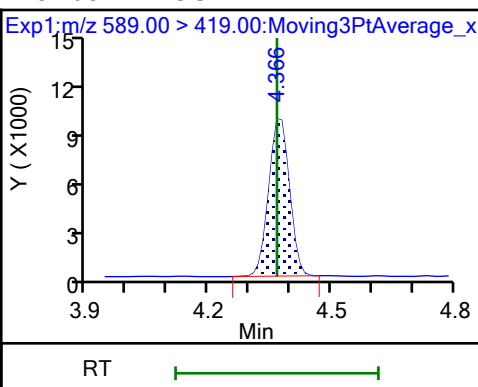
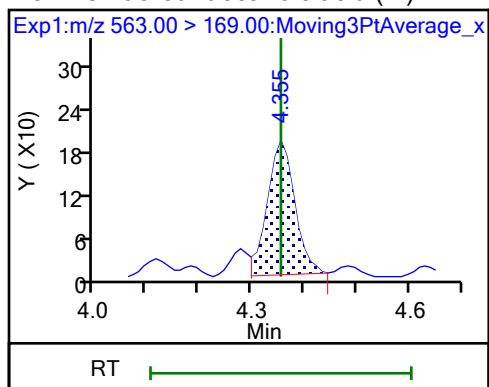
31 Perfluoroundecanoic acid (M)



31 Perfluoroundecanoic acid (M)

D 32 d5-NEtFOSAA

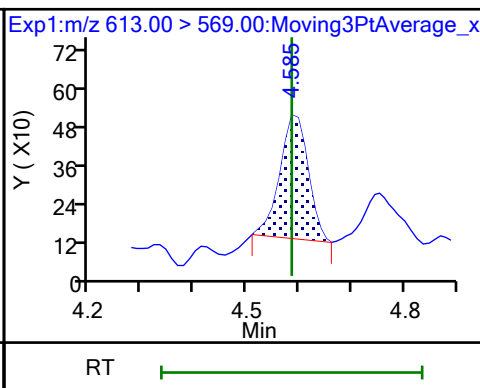
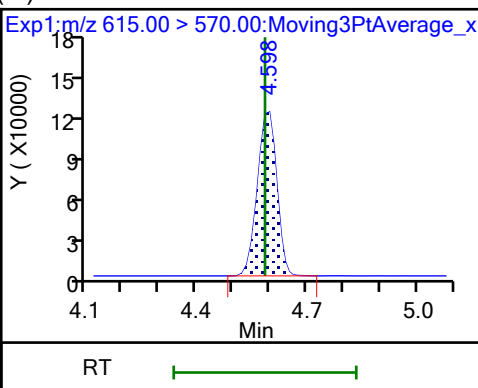
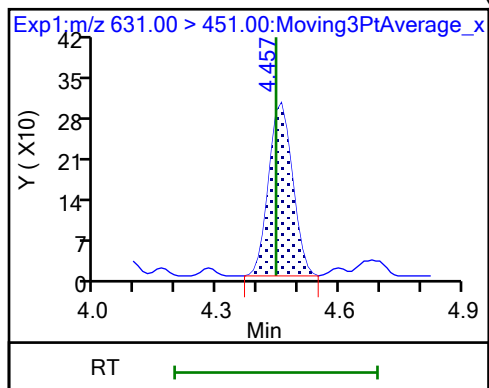
33 N-ethylperfluorooctanesulfonamid (M)



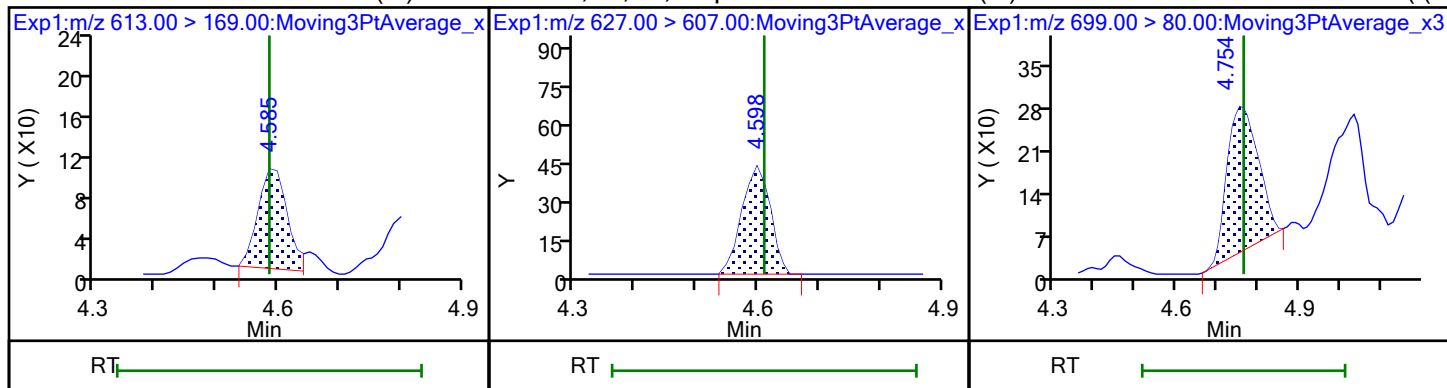
66 11-Chloroeicosafluoro-3-oxaundec (M)

36 13C2 PFDoA

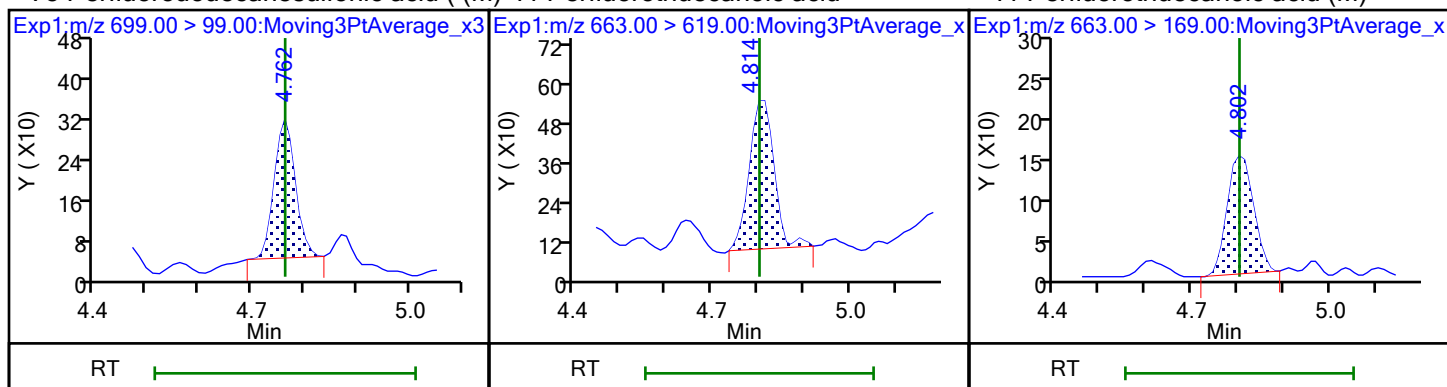
37 Perfluorododecanoic acid



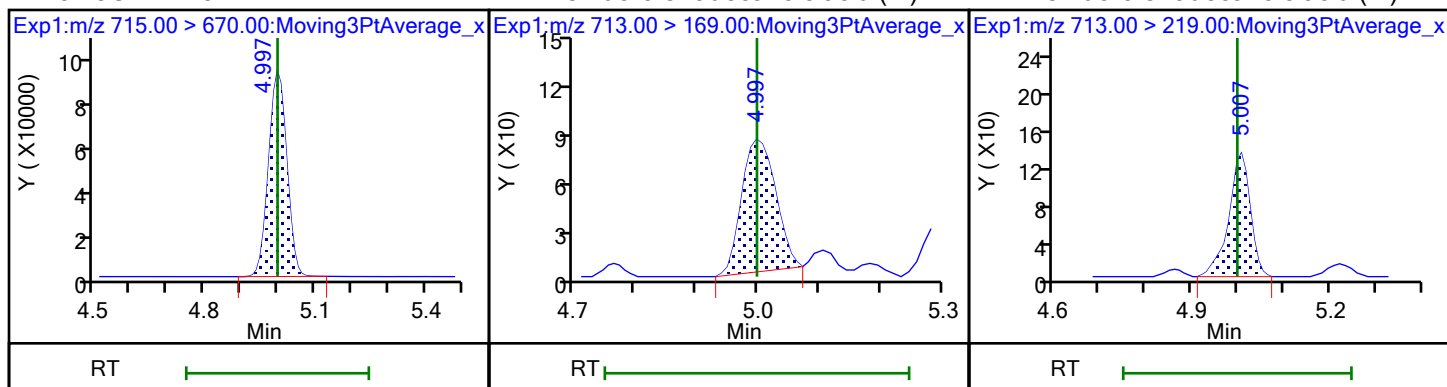
37 Perfluorododecanoic acid (M) 74 1H,1H,2H,2H-perfluorododecanesul (M) 75 Perfluorododecanesulfonic acid (M)



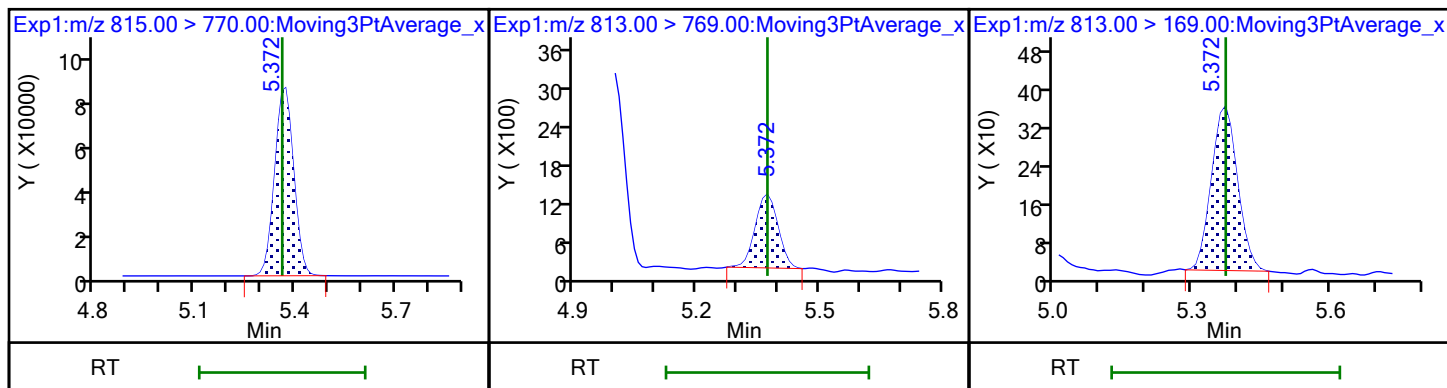
75 Perfluorododecanesulfonic acid (M) 41 Perfluorotridecanoic acid 41 Perfluorotridecanoic acid (M)



D 43 13C2 PFTeDA 42 Perfluorotetradecanoic acid (M) 42 Perfluorotetradecanoic acid (M)



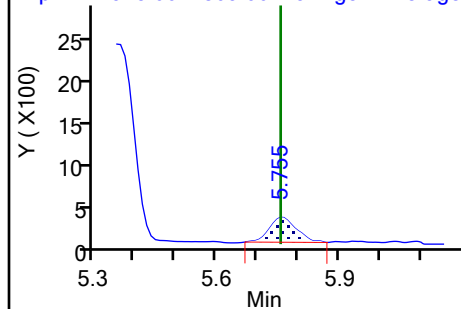
D 44 13C2 PFHxDA 45 Perfluorohexadecanoic acid 45 Perfluorohexadecanoic acid



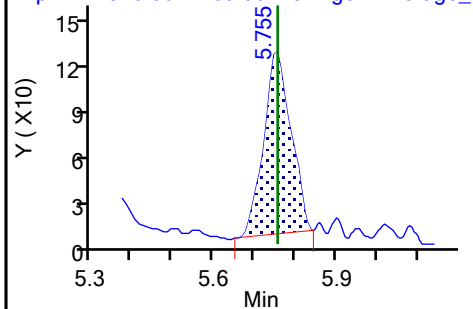
46 Perfluorooctadecanoic acid

46 Perfluorooctadecanoic acid (M)

Exp1:m/z 913.00 > 869.00:Moving3PtAverage_x



Exp1:m/z 913.00 > 169.00:Moving3PtAverage_x



Eurofins TestAmerica, Burlington

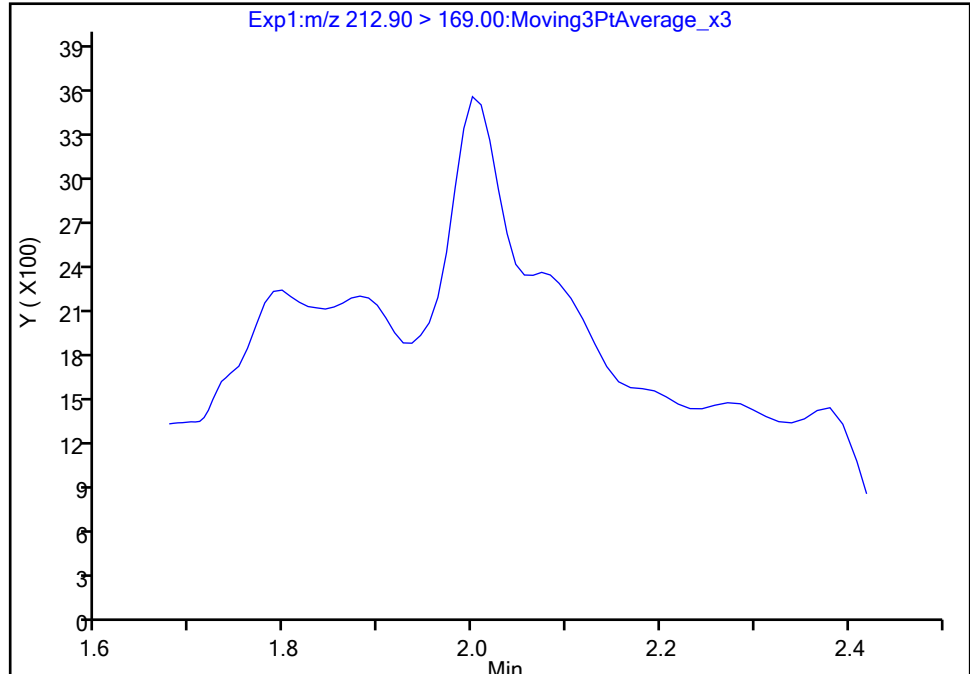
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d
Injection Date: 22-Sep-2020 20:20:13 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

2 Perfluorobutanoic acid, CAS: 375-22-4

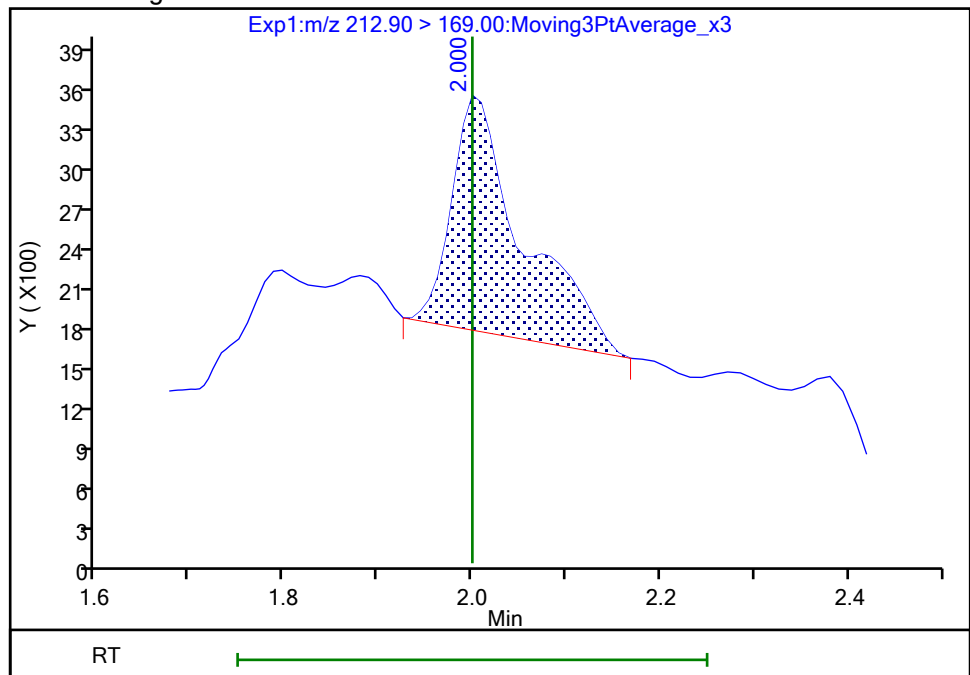
Signal: 1

Not Detected
Expected RT: 2.00

Processing Integration Results



Manual Integration Results



RT: 2.00
Area: 9311
Amount: 0.012219
Amount Units: ng/ml

Eurofins TestAmerica, Burlington

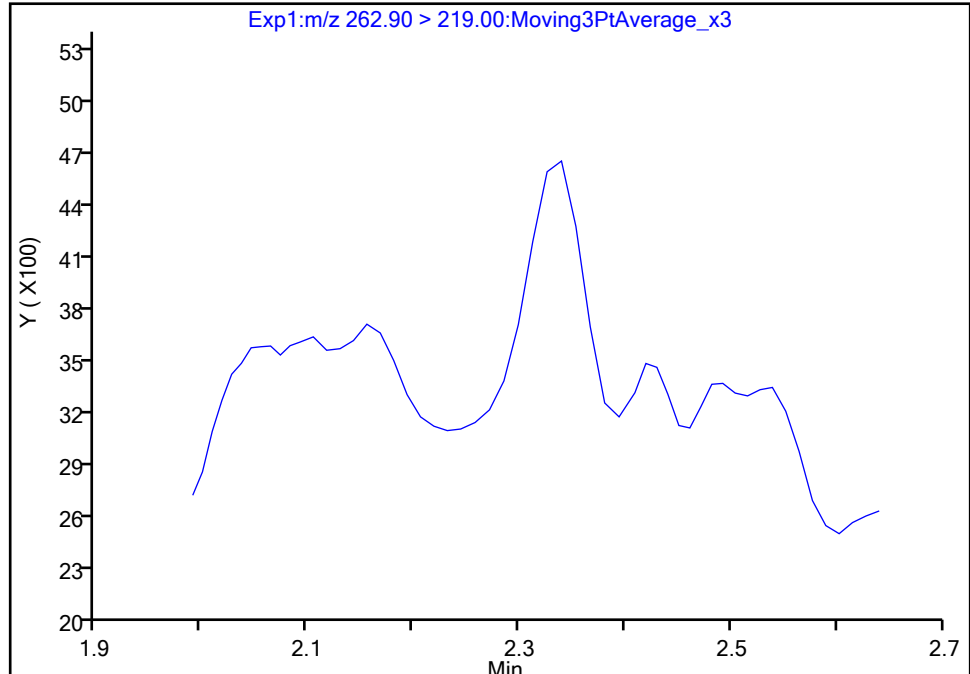
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d
Injection Date: 22-Sep-2020 20:20:13 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

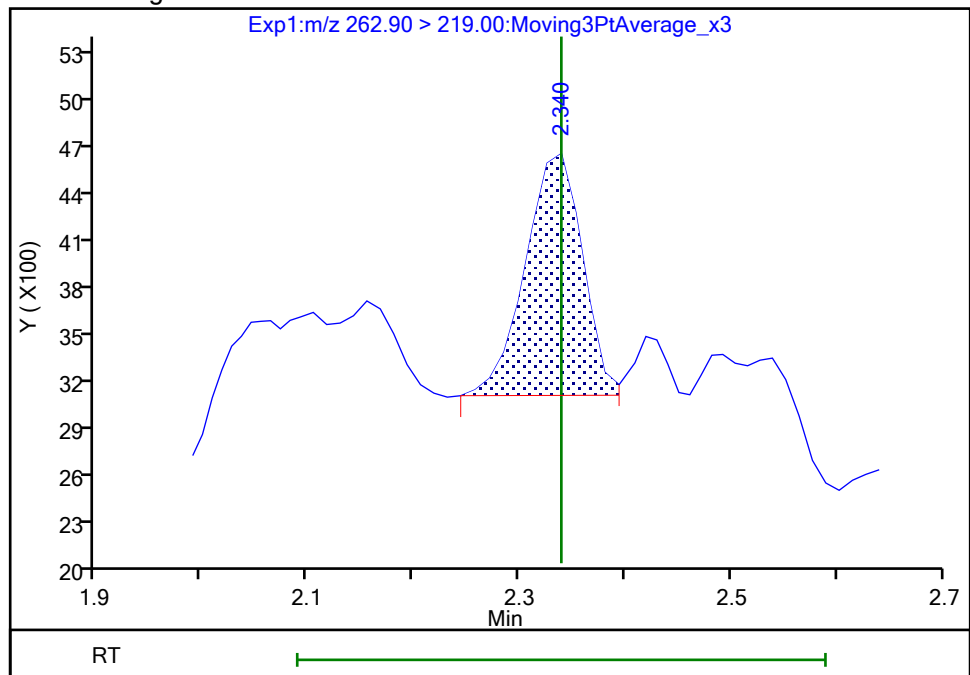
Not Detected
Expected RT: 2.34

Processing Integration Results



RT: 2.34
Area: 5683
Amount: 0.009040
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 10:08:37

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

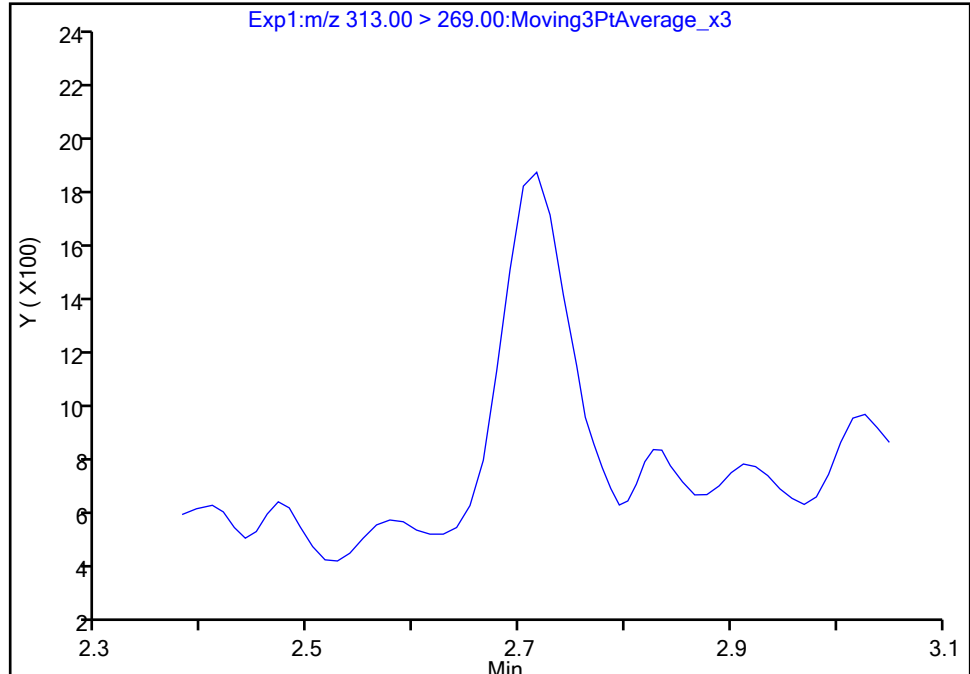
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d
Injection Date: 22-Sep-2020 20:20:13 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

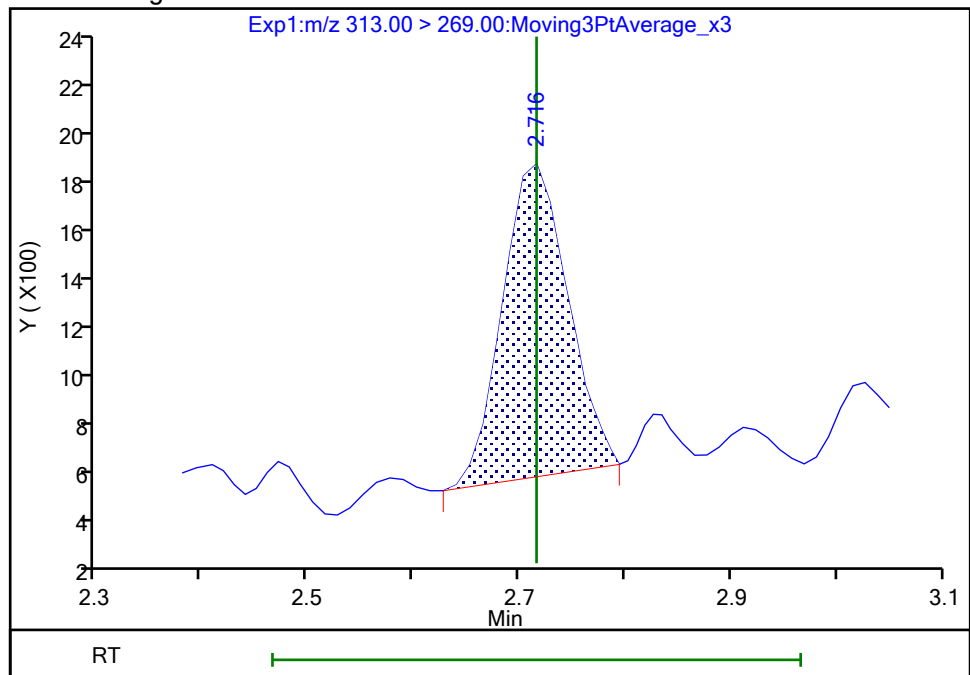
Not Detected
Expected RT: 2.72

Processing Integration Results



RT: 2.72
Area: 5156
Amount: 0.008644
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 10:09:00
Audit Action: Manually Integrated

Audit Reason: Missed Peak
Page 797 of 906

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d

Injection Date: 22-Sep-2020 20:20:13

Instrument ID: LC812

Lims ID: ICB

Client ID:

Operator ID: lc812tech

ALS Bottle#:

8

Worklist Smp#: 11

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

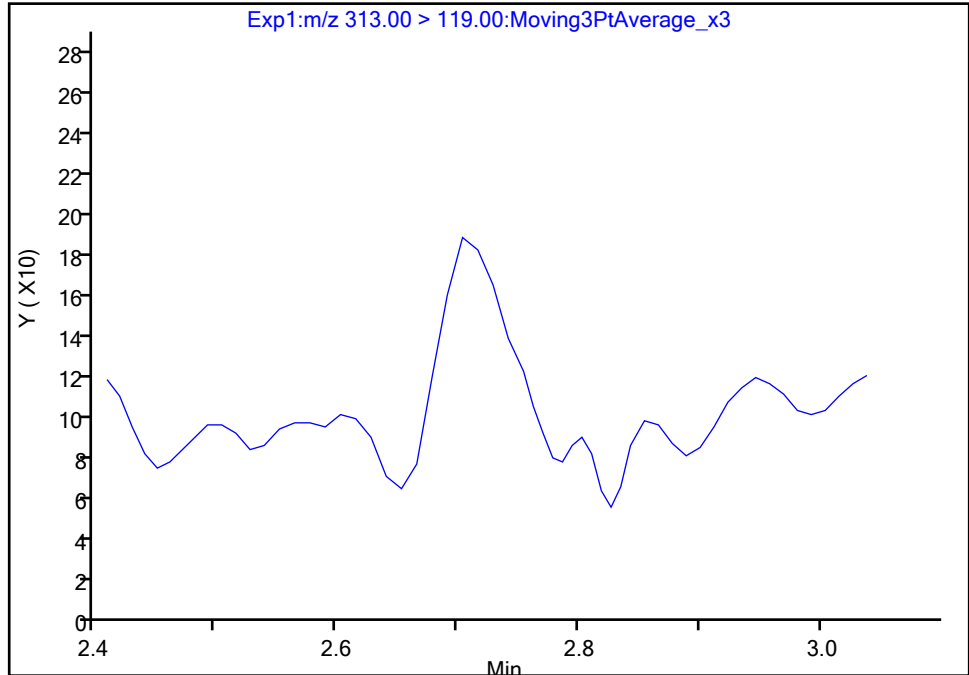
6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

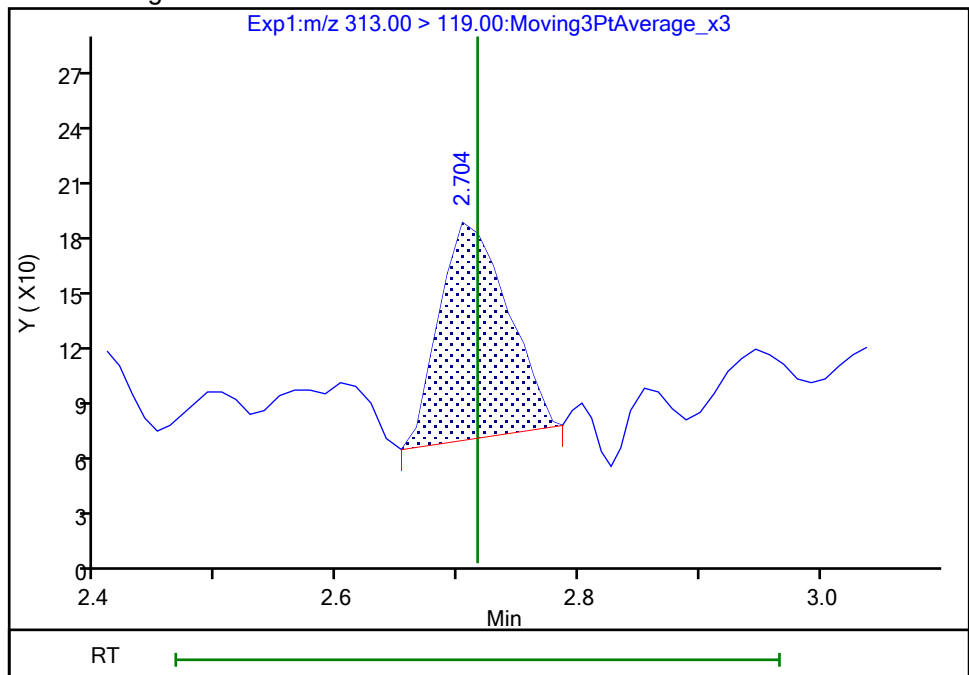
Not Detected

Expected RT: 2.72

Processing Integration Results



Manual Integration Results



RT: 2.70

Area: 458

Amount: 0.008644

Amount Units: ng/ml

Reviewer: chirgwinb, 23-Sep-2020 10:09:04

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

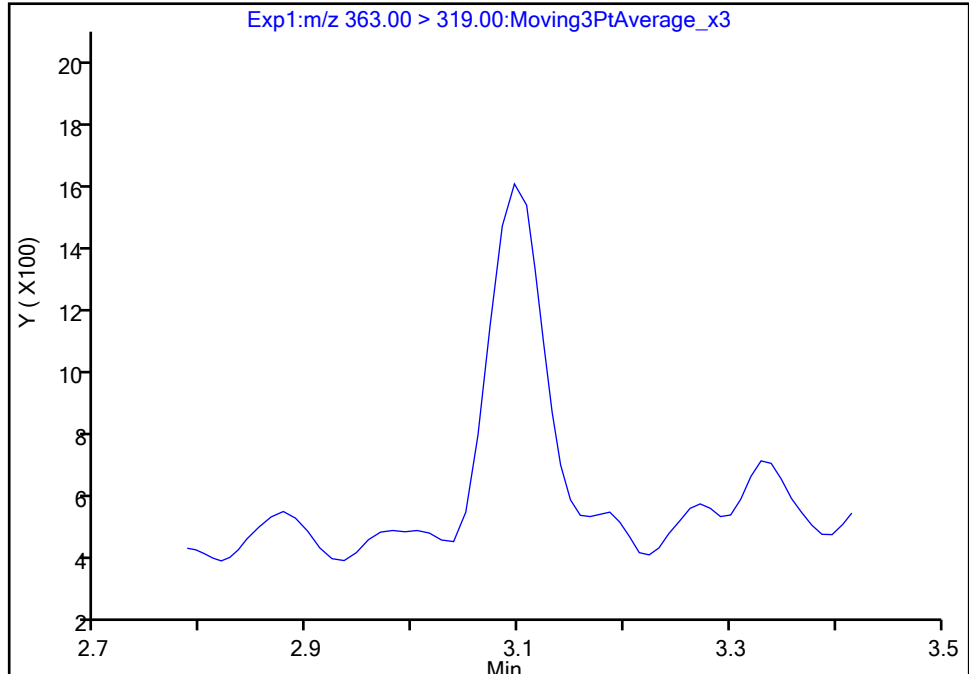
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d
Injection Date: 22-Sep-2020 20:20:13 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

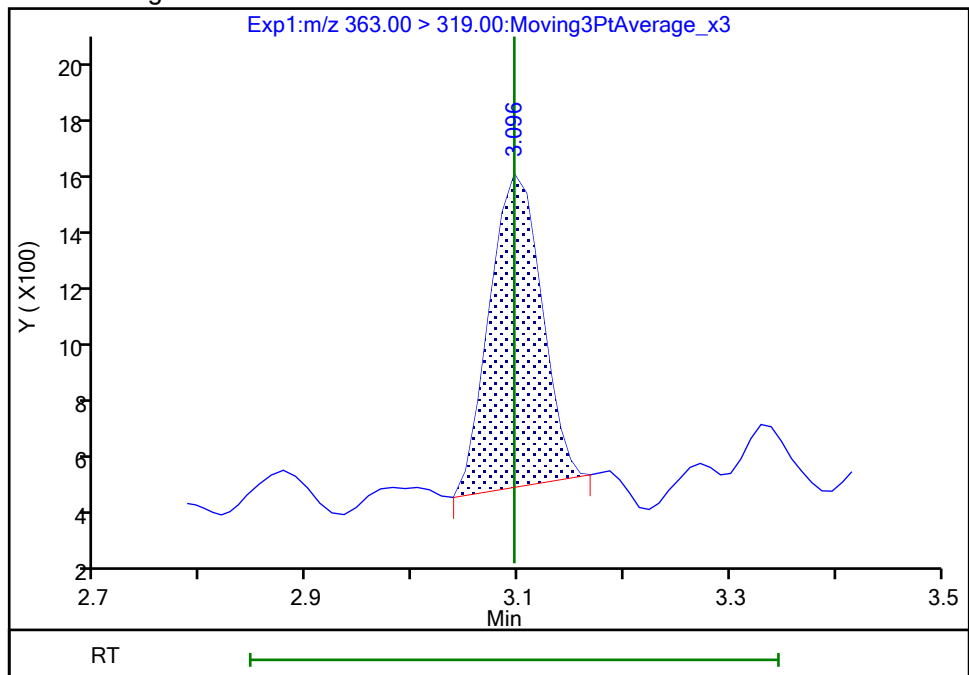
Not Detected
Expected RT: 3.10

Processing Integration Results



RT: 3.10
Area: 3739
Amount: 0.006821
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 10:09:42
Audit Action: Manually Integrated

Audit Reason: Missed Peak
Page 799 of 906

Eurofins TestAmerica, Burlington

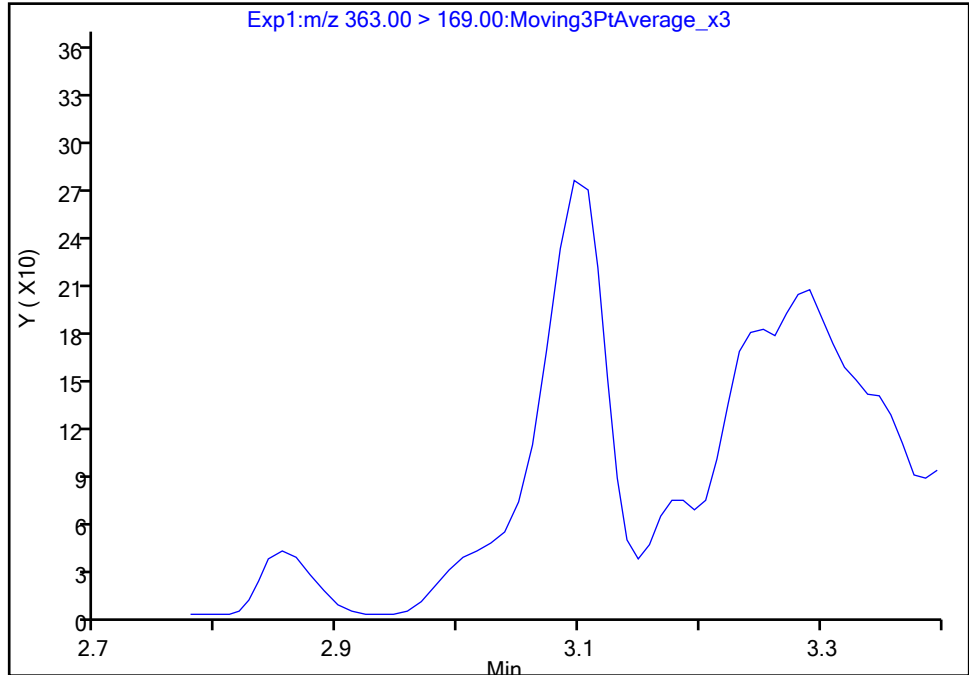
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d
Injection Date: 22-Sep-2020 20:20:13 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

10 Perfluoroheptanoic acid, CAS: 375-85-9

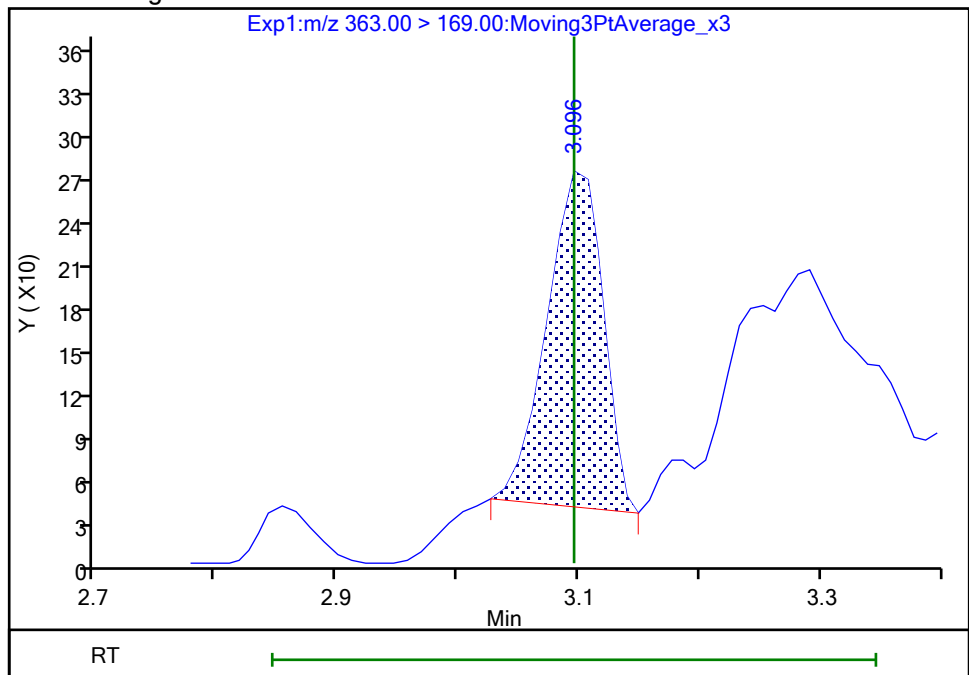
Signal: 2

Not Detected
Expected RT: 3.10

Processing Integration Results



Manual Integration Results



RT: 3.10
Area: 755
Amount: 0.006821
Amount Units: ng/ml

Eurofins TestAmerica, Burlington

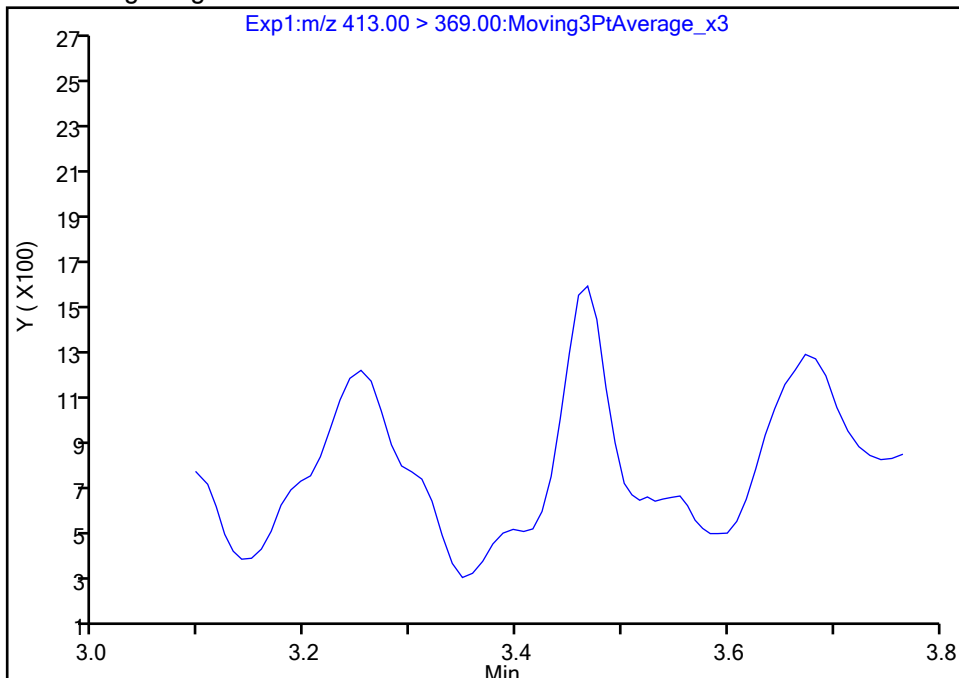
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d
Injection Date: 22-Sep-2020 20:20:13 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

15 Perfluorooctanoic acid, CAS: 335-67-1

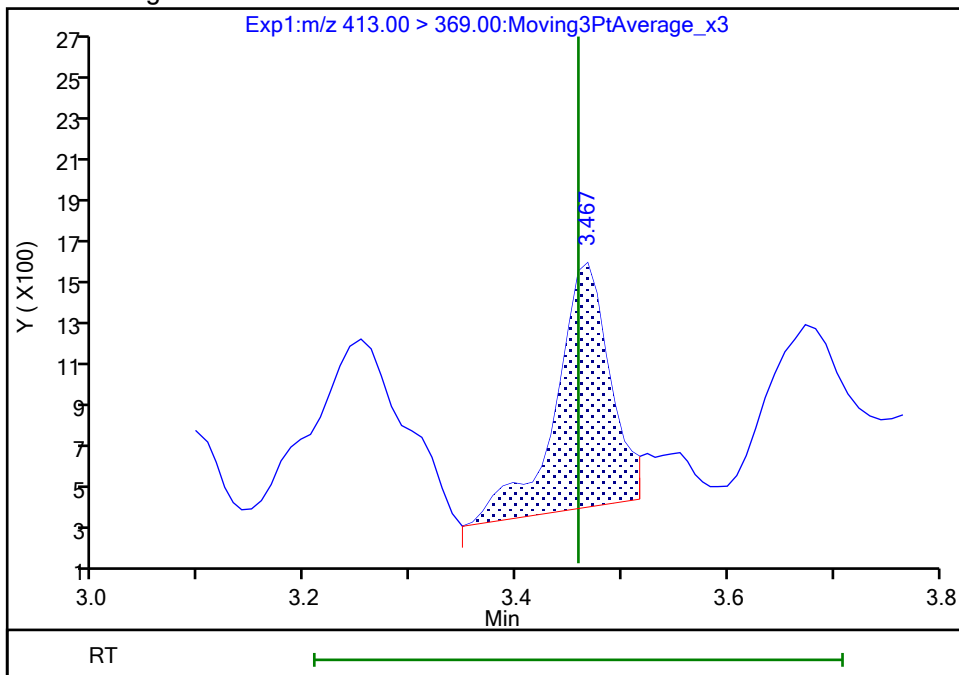
Signal: 1

Not Detected
Expected RT: 3.46

Processing Integration Results



Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 10:10:17

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d

Injection Date: 22-Sep-2020 20:20:13

Instrument ID: LC812

Lims ID: ICB

Client ID:

Operator ID: lc812tech

ALS Bottle#:

8

Worklist Smp#: 11

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

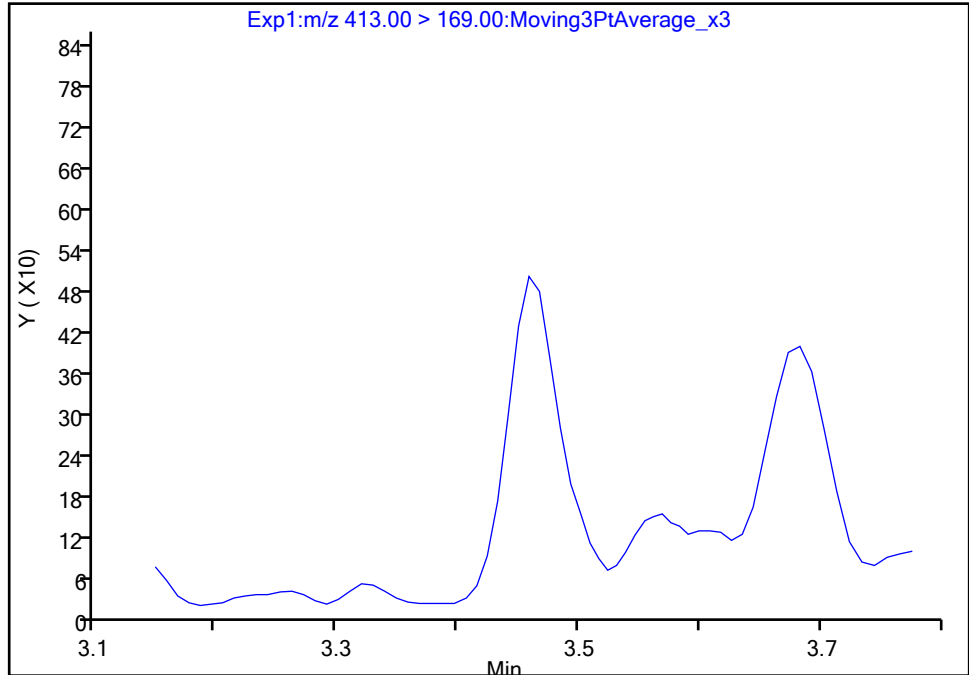
15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

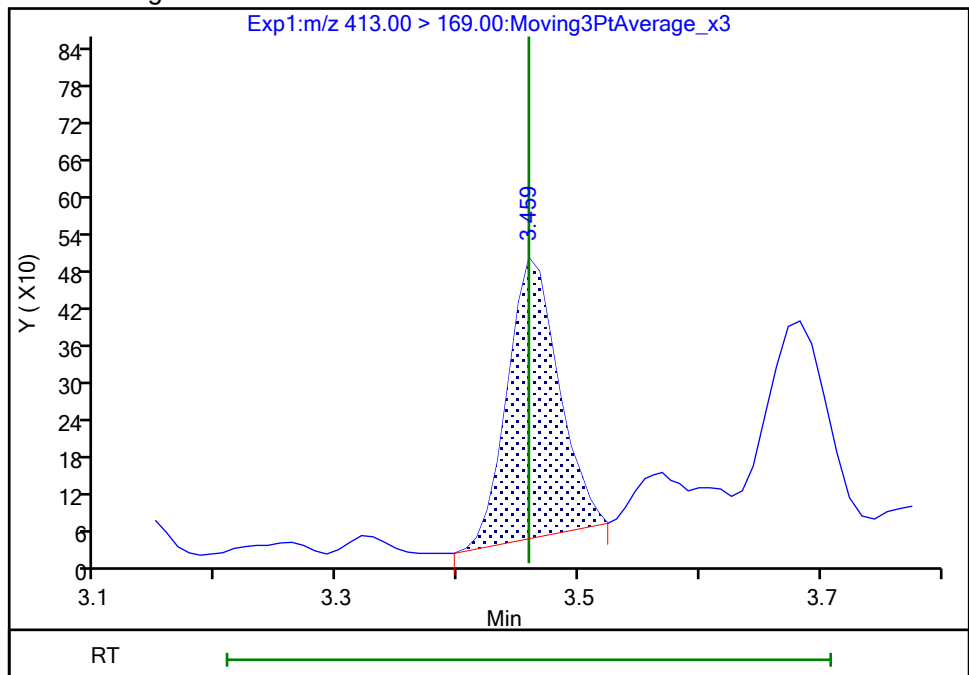
Not Detected

Expected RT: 3.46

Processing Integration Results



Manual Integration Results



RT: 3.46

Area: 1344

Amount: 0.007089

Amount Units: ng/ml

Reviewer: chirgwinb, 23-Sep-2020 10:10:21

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d

Injection Date: 22-Sep-2020 20:20:13

Instrument ID: LC812

Lims ID: ICB

Client ID:

Operator ID: lc812tech

ALS Bottle#:

8

Worklist Smp#: 11

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

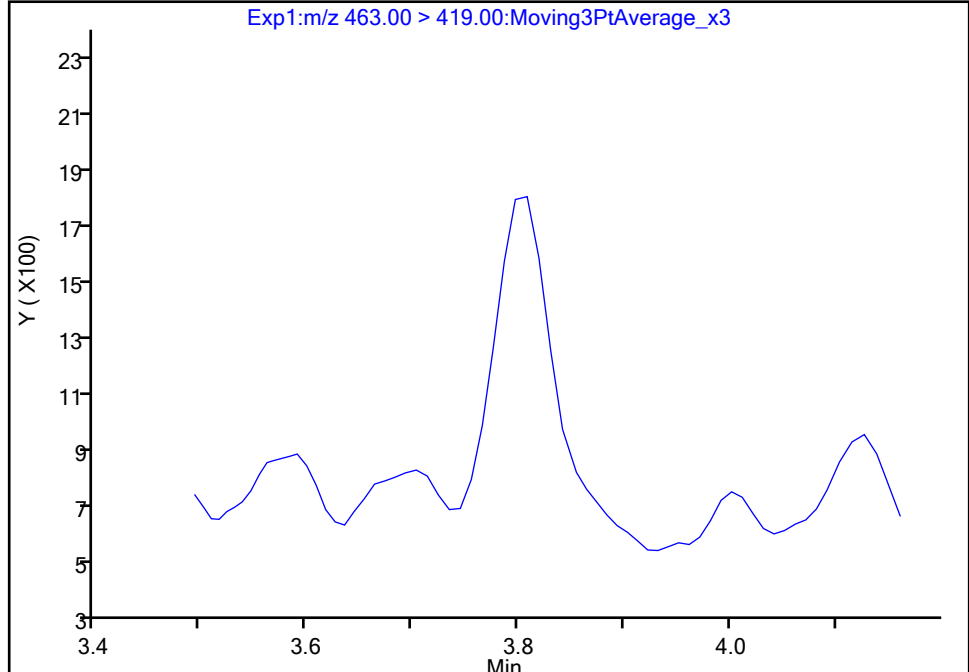
20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

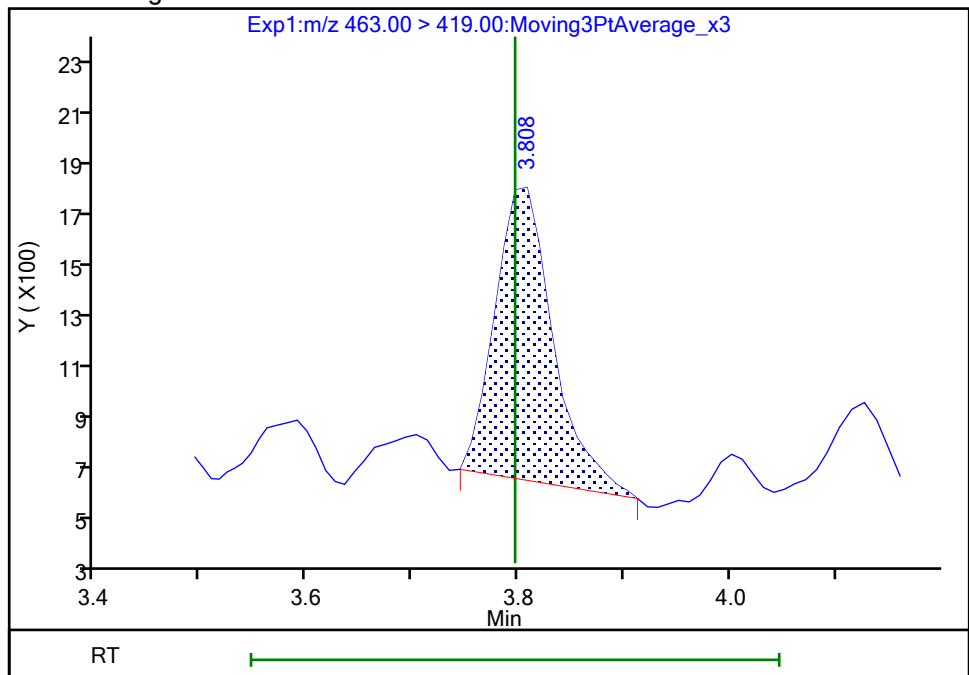
Not Detected

Expected RT: 3.80

Processing Integration Results



Manual Integration Results



RT: 3.81

Area: 4298

Amount: 0.009174

Amount Units: ng/ml

Reviewer: chirgwinb, 23-Sep-2020 10:11:12

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d

Injection Date: 22-Sep-2020 20:20:13

Instrument ID: LC812

Lims ID: ICB

Client ID:

Operator ID: lc812tech

ALS Bottle#:

8

Worklist Smp#: 11

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

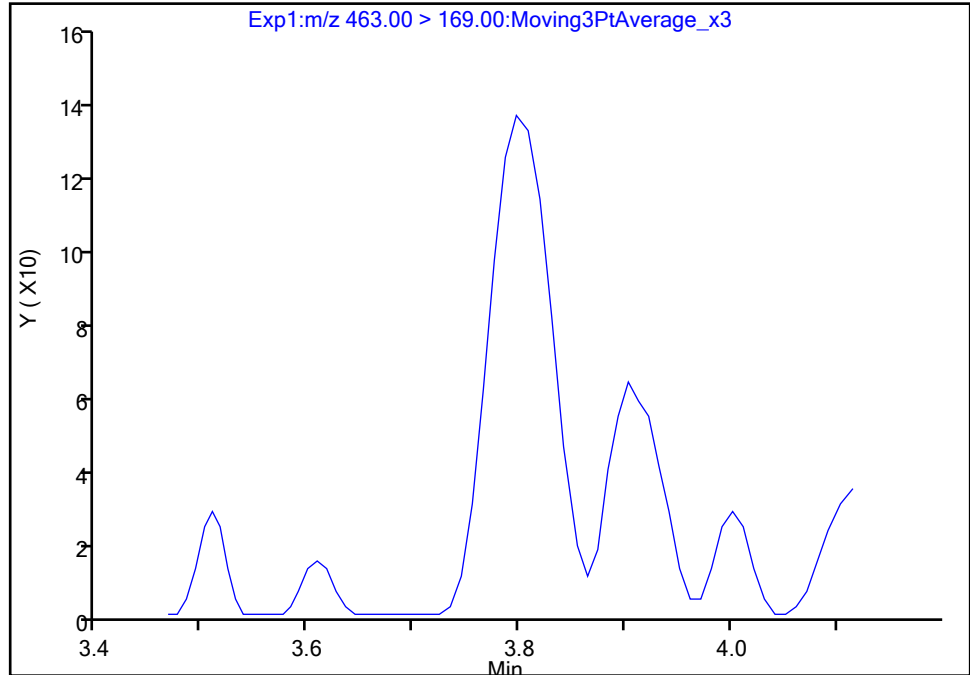
20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

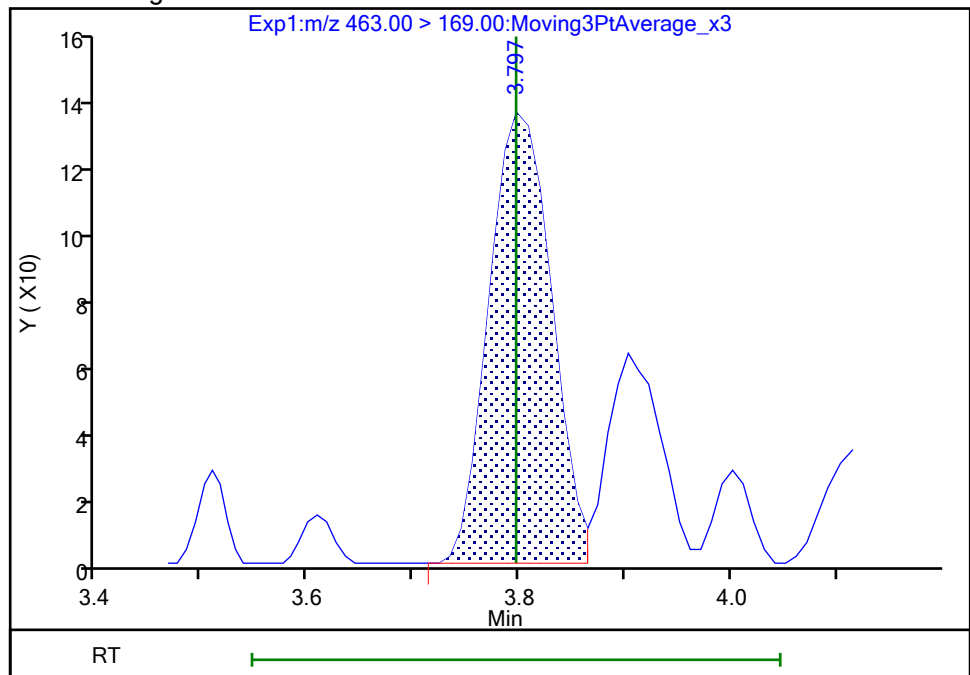
Not Detected

Expected RT: 3.80

Processing Integration Results



Manual Integration Results



RT: 3.80

Area: 538

Amount: 0.009174

Amount Units: ng/ml

Reviewer: chirgwinb, 23-Sep-2020 10:11:23

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

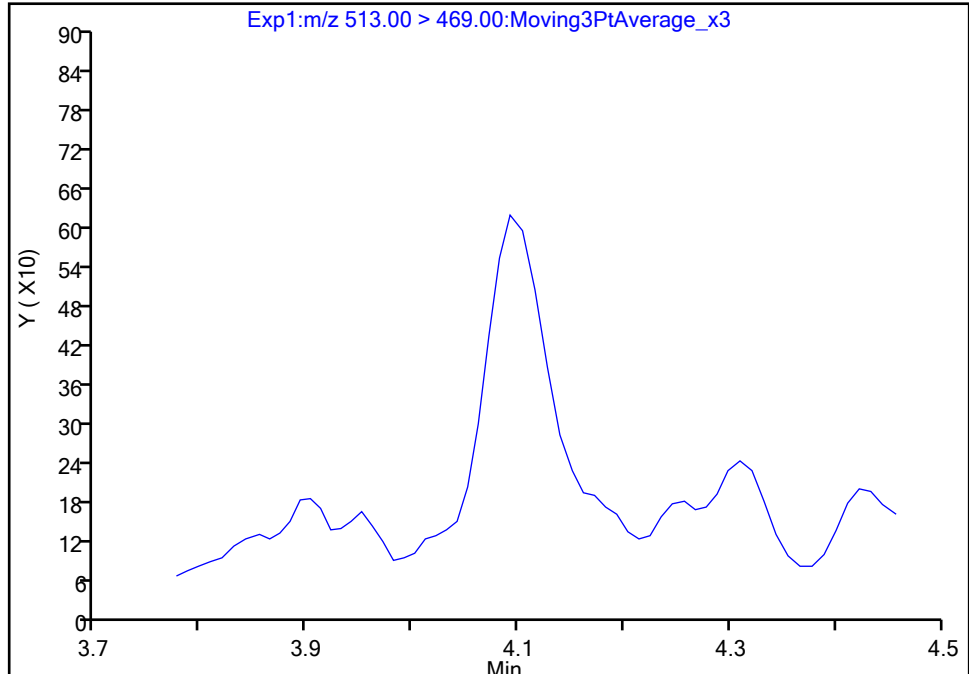
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d
Injection Date: 22-Sep-2020 20:20:13 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

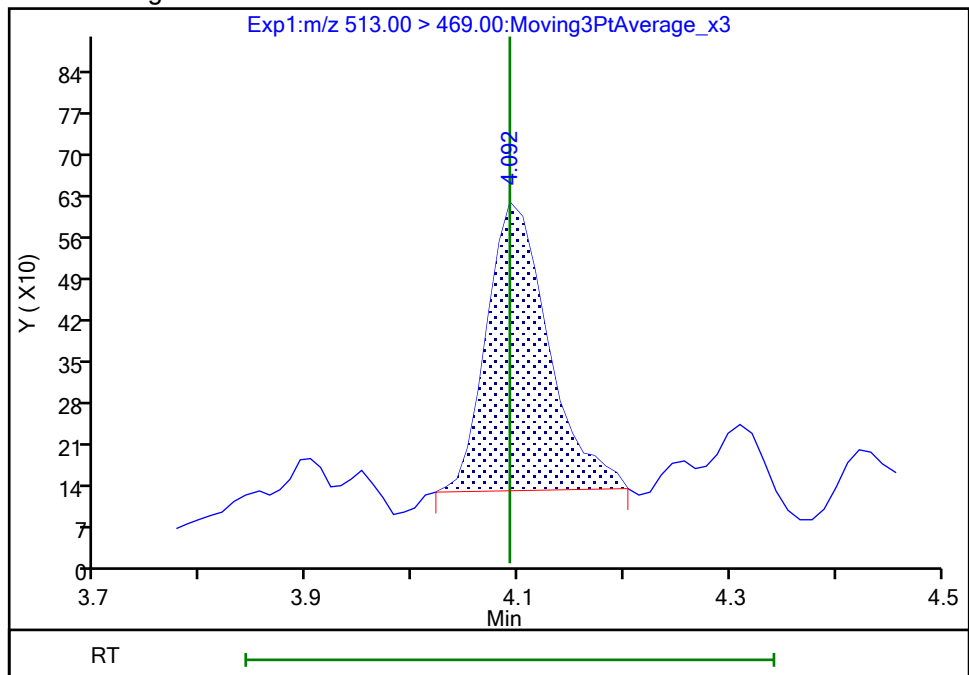
Not Detected
Expected RT: 4.09

Processing Integration Results



RT: 4.09
Area: 1988
Amount: 0.004688
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 10:12:02
Audit Action: Manually Integrated

Audit Reason: Missed Peak
Page 805 of 906

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d

Injection Date: 22-Sep-2020 20:20:13

Instrument ID: LC812

Lims ID: ICB

Client ID:

Operator ID: lc812tech

ALS Bottle#:

8

Worklist Smp#: 11

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

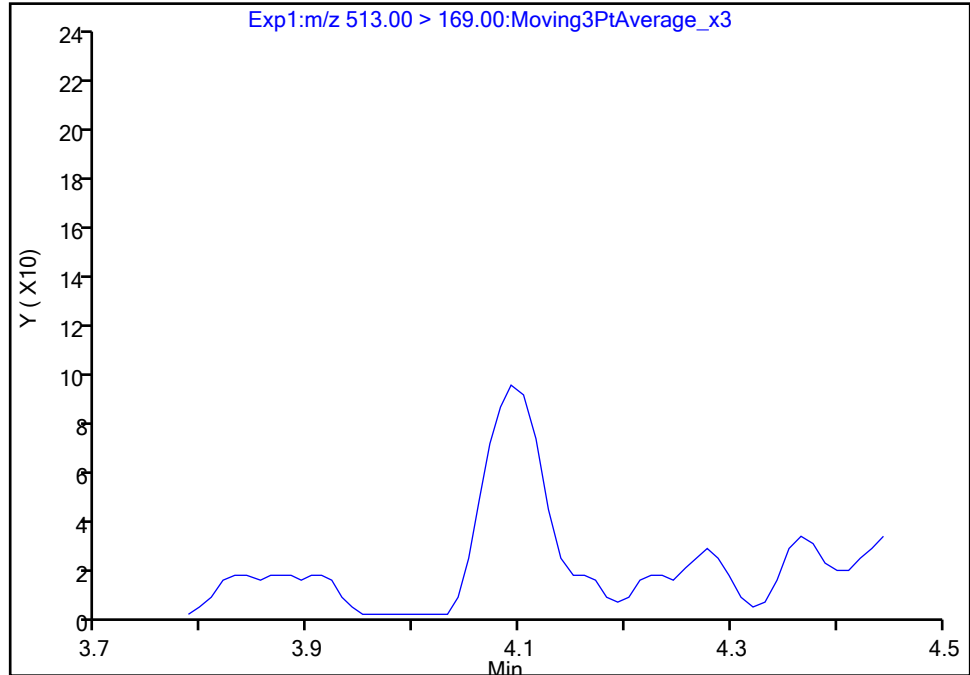
24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

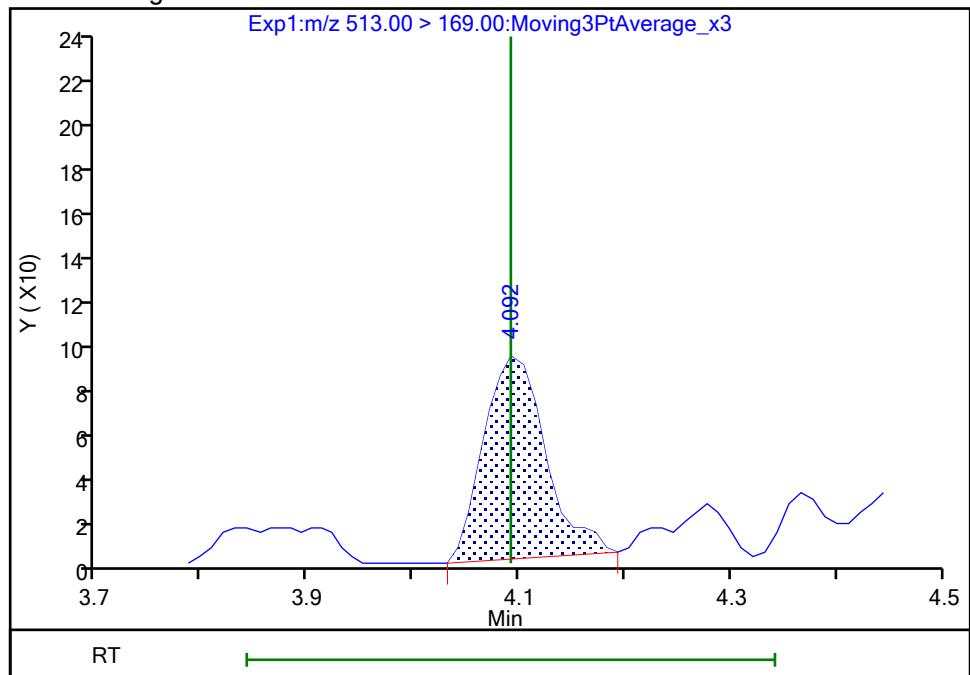
Not Detected

Expected RT: 4.09

Processing Integration Results



Manual Integration Results



RT: 4.09

Area: 373

Amount: 0.004688

Amount Units: ng/ml

Reviewer: chirgwinb, 23-Sep-2020 10:12:05

Audit Action: Manually Integrated

Audit Reason: Missed Peak

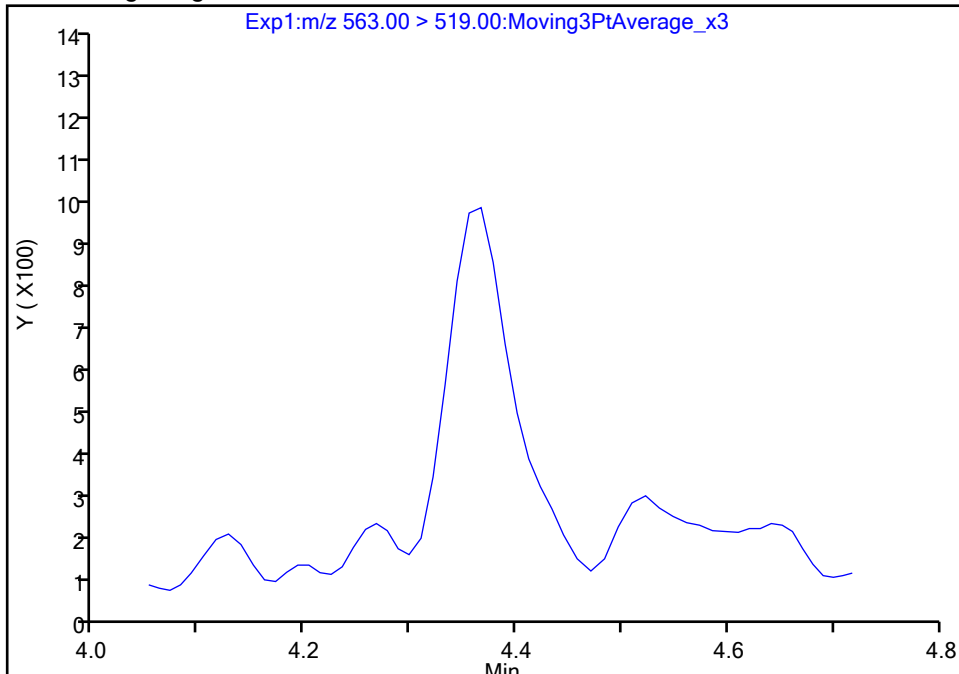
Data File:	\\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922\ICAL11.d		
Injection Date:	22-Sep-2020 20:20:13	Instrument ID:	LC812
Lims ID:	ICB		
Client ID:			
Operator ID:	lc812tech	ALS Bottle#:	8 Worklist S
Injection Vol:	20.0 ul	Dil. Factor:	1.0000
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL
Column:	C-18 (4.60 mm)	Detector	EXP1

EXP1

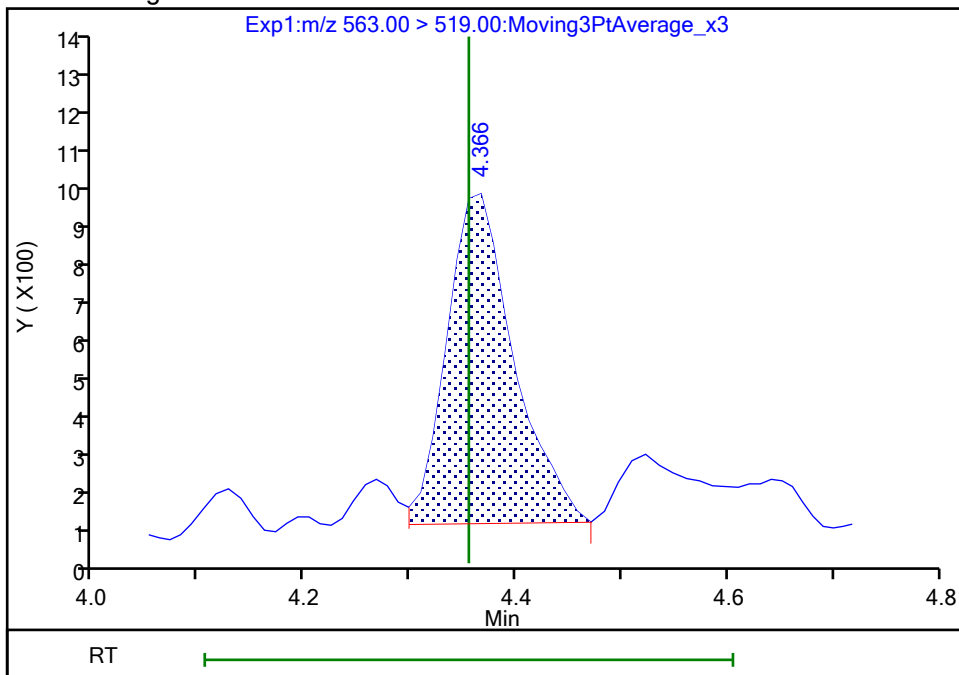
Signal: 1

Not Detected
Expected RT: 4.35

Exp1:m/z 563.00 > 519.00:Moving3PtAverage x3



Exp1:m/z 563.00 > 519.00:Moving3PtAverage x3



Reviewer: chirgwinb, 23-Sep-2020 10:12:45
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d

Injection Date: 22-Sep-2020 20:20:13

Instrument ID: LC812

Lims ID: ICB

Client ID:

Operator ID: lc812tech

ALS Bottle#:

8

Worklist Smp#: 11

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

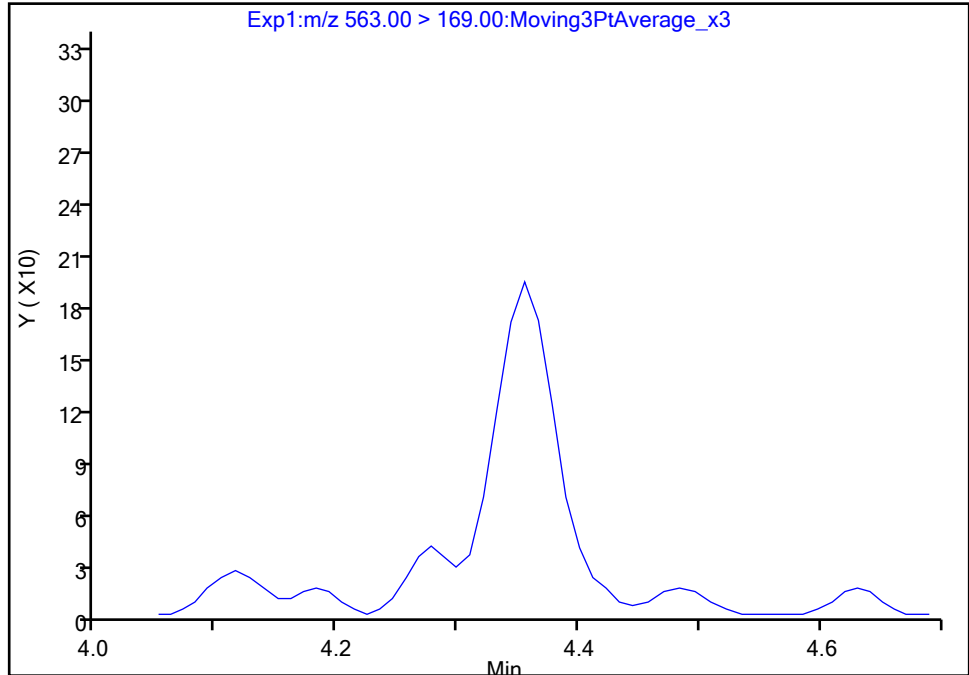
31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

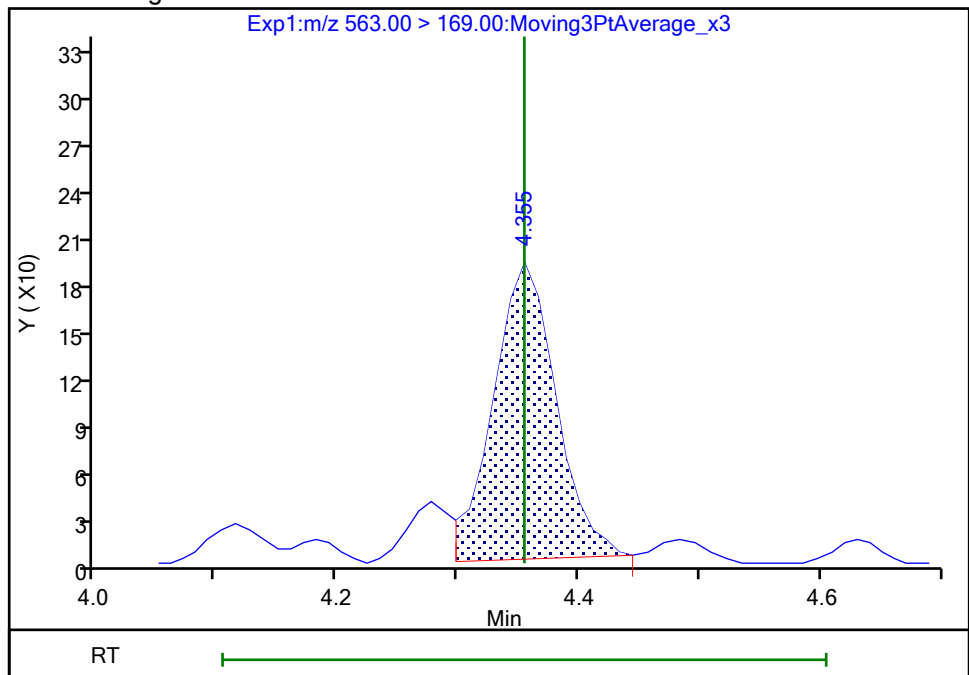
Not Detected

Expected RT: 4.35

Processing Integration Results



Manual Integration Results



RT: 4.36

Area: 672

Amount: 0.012234

Amount Units: ng/ml

Reviewer: chirgwinb, 23-Sep-2020 10:12:52

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

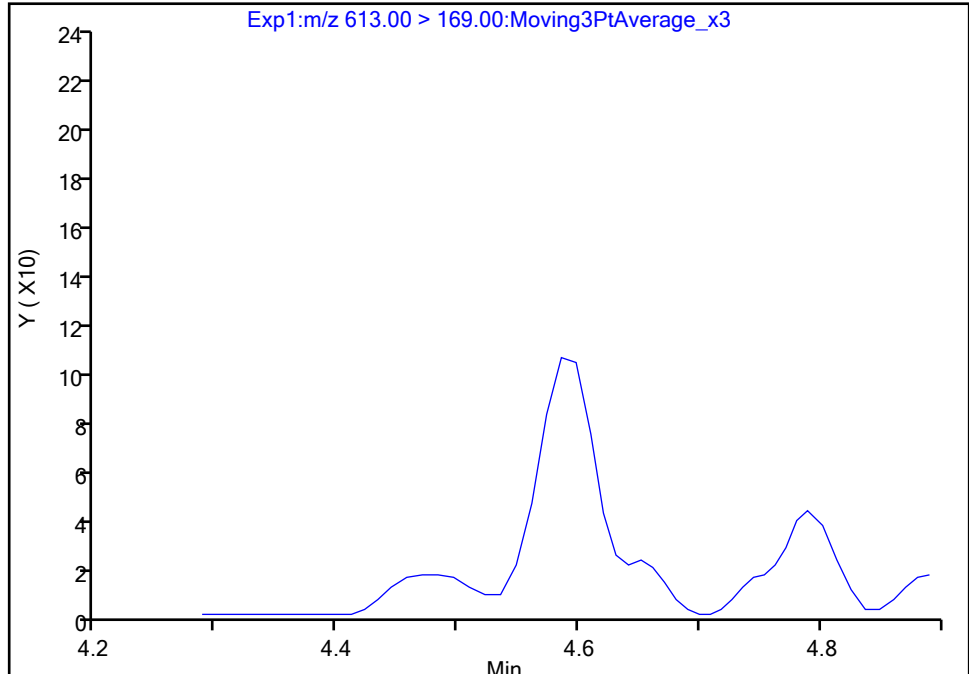
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d
Injection Date: 22-Sep-2020 20:20:13 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

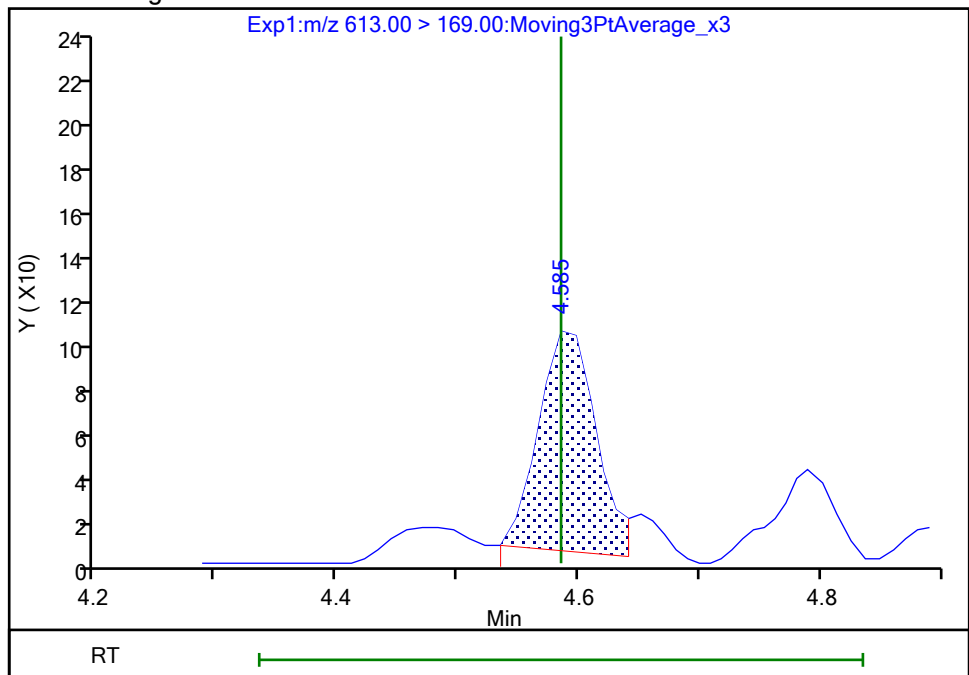
Not Detected
Expected RT: 4.59

Processing Integration Results



Manual Integration Results

RT: 4.59
Area: 324
Amount: 0.004259
Amount Units: ng/ml



Reviewer: chirgwinb, 23-Sep-2020 10:13:16
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 809 of 906

Eurofins TestAmerica, Burlington

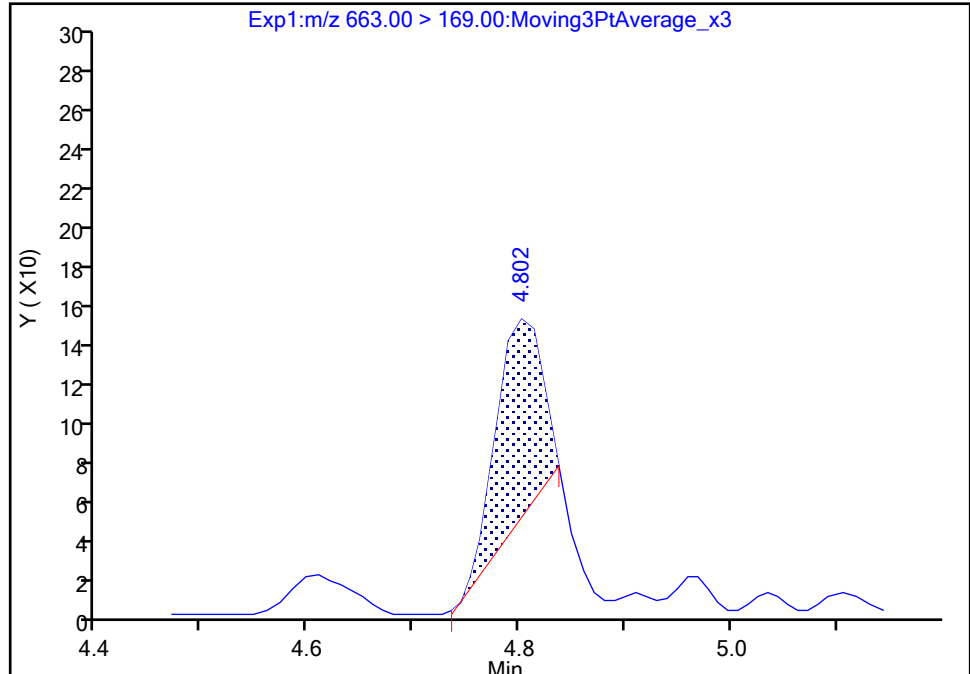
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d
Injection Date: 22-Sep-2020 20:20:13 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

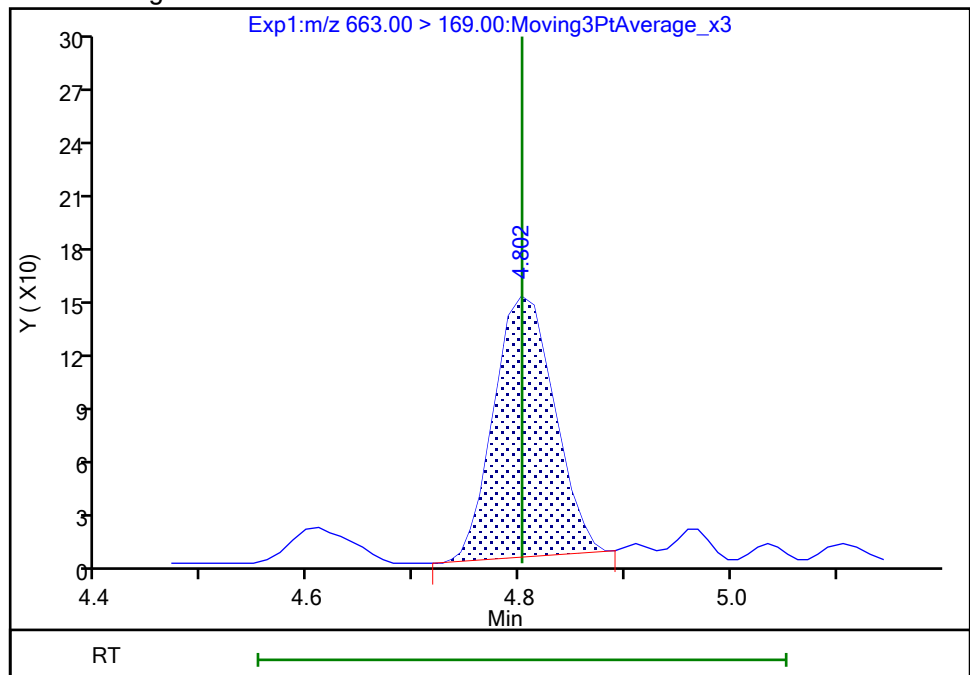
RT: 4.80
Area: 302
Amount: 0.005826
Amount Units: ng/ml

Processing Integration Results



RT: 4.80
Area: 578
Amount: 0.005826
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 10:13:42
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 810 of 906

Eurofins TestAmerica, Burlington

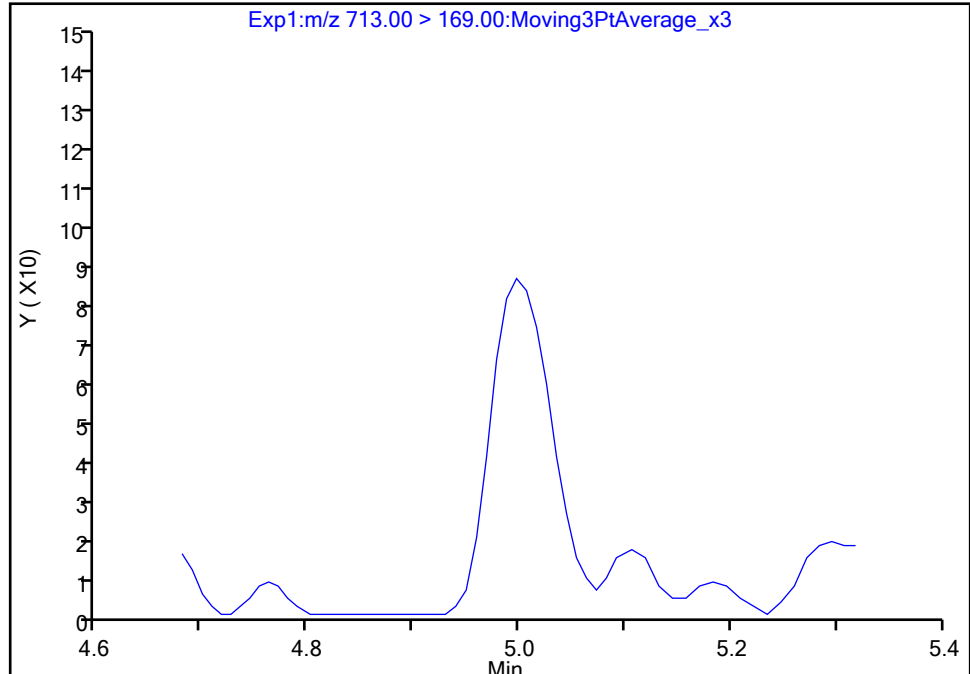
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d
Injection Date: 22-Sep-2020 20:20:13 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

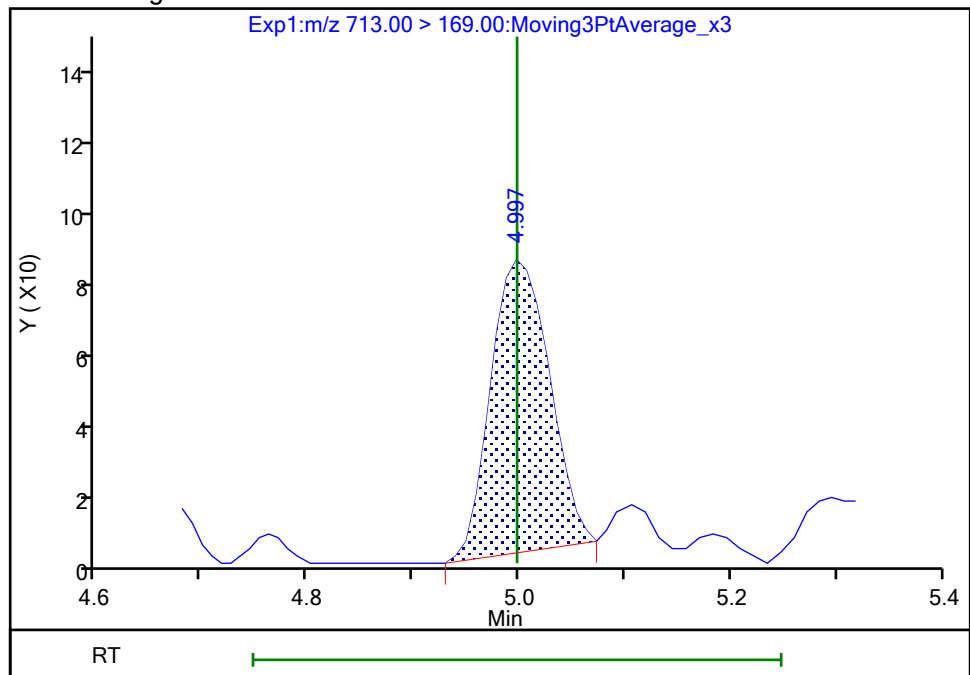
Signal: 1

Not Detected
Expected RT: 5.00

Processing Integration Results



Manual Integration Results



RT: 5.00
Area: 308
Amount: 0.005360
Amount Units: ng/ml

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d

Injection Date: 22-Sep-2020 20:20:13

Instrument ID: LC812

Lims ID: ICB

Client ID:

Operator ID: lc812tech

ALS Bottle#:

8

Worklist Smp#: 11

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

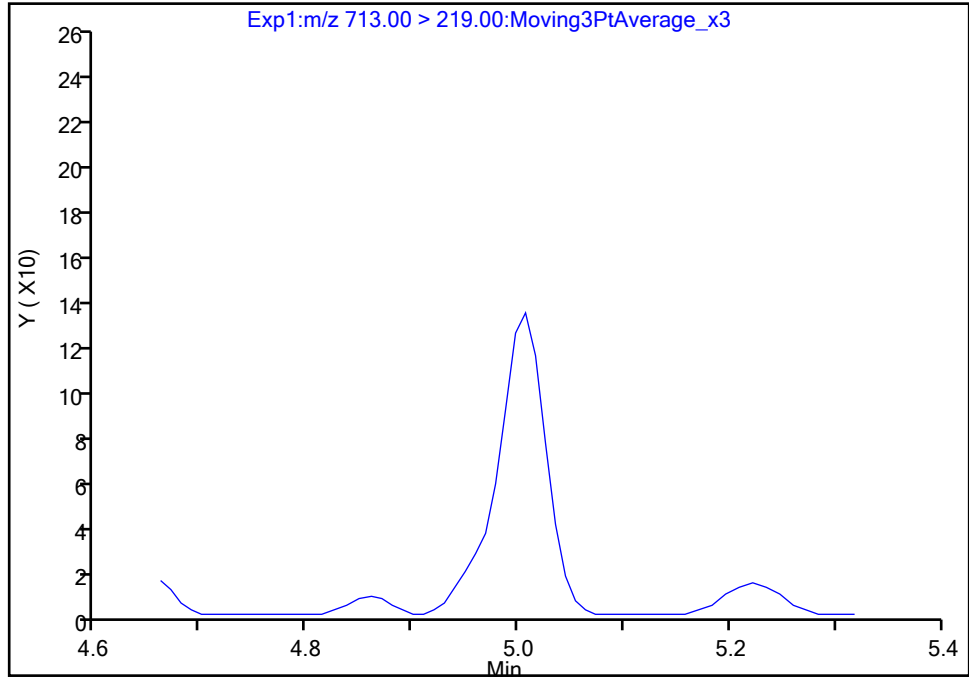
42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

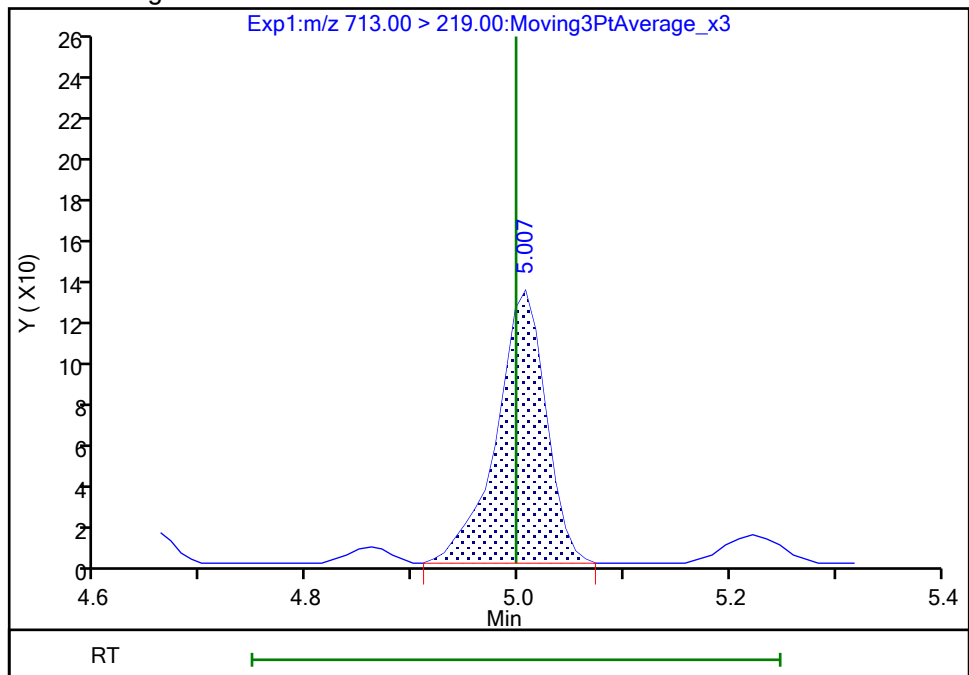
Not Detected

Expected RT: 5.00

Processing Integration Results



Manual Integration Results



RT: 5.01

Area: 435

Amount: 0.005360

Amount Units: ng/ml

Reviewer: chirgwinb, 23-Sep-2020 10:13:54

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

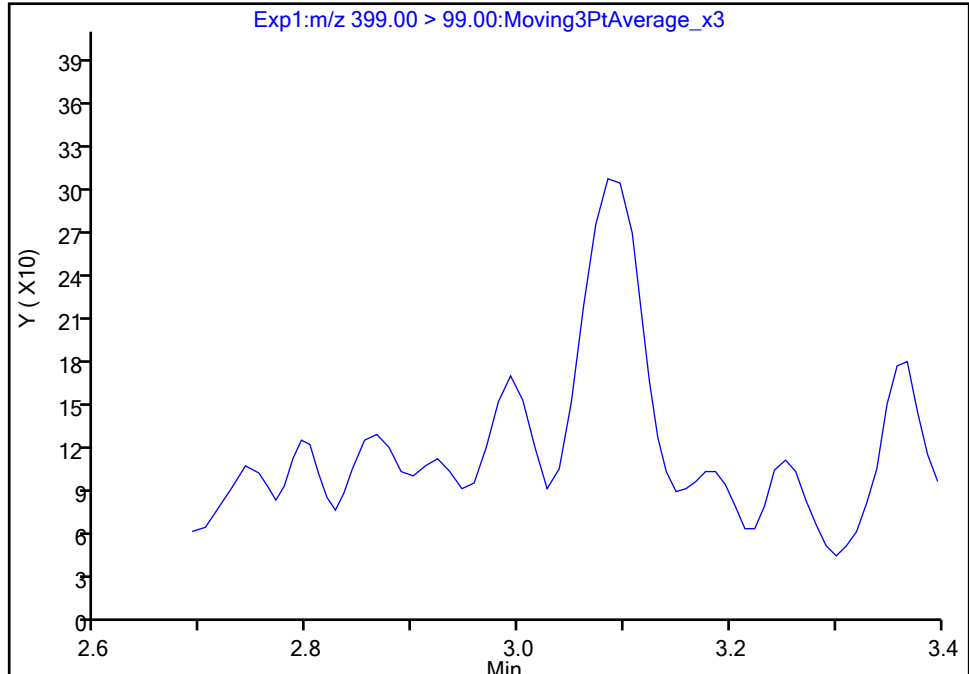
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d
Injection Date: 22-Sep-2020 20:20:13 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

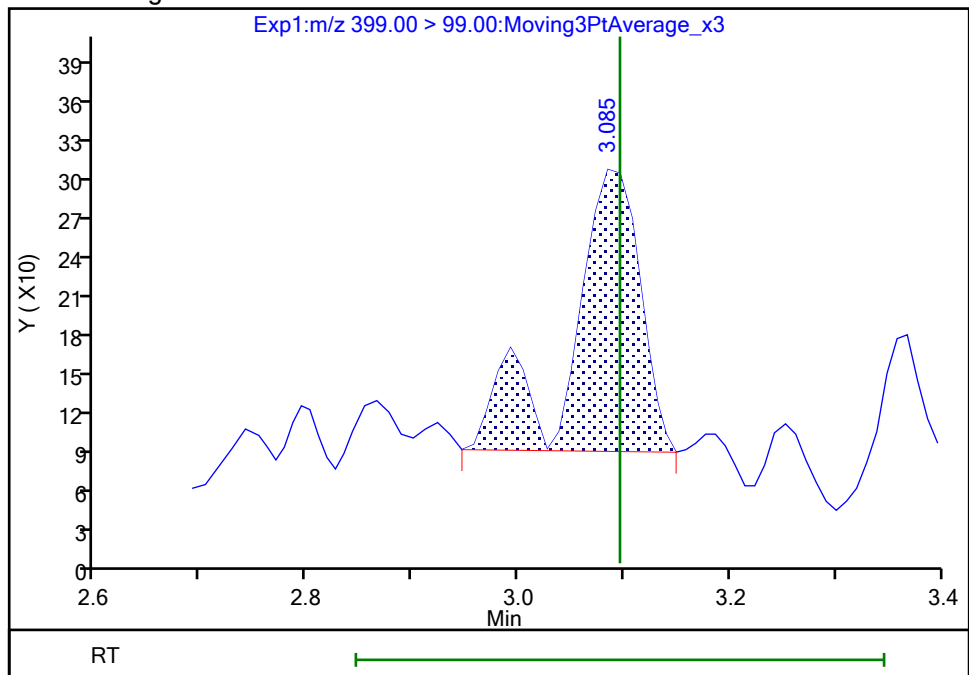
Not Detected
Expected RT: 3.10

Processing Integration Results



Manual Integration Results

RT: 3.08
Area: 986
Amount: 0.009585
Amount Units: ng/ml



Reviewer: chirgwinb, 23-Sep-2020 10:09:29

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d

Injection Date: 22-Sep-2020 20:20:13

Instrument ID: LC812

Lims ID: ICB

Client ID:

Operator ID: lc812tech

ALS Bottle#:

8

Worklist Smp#: 11

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

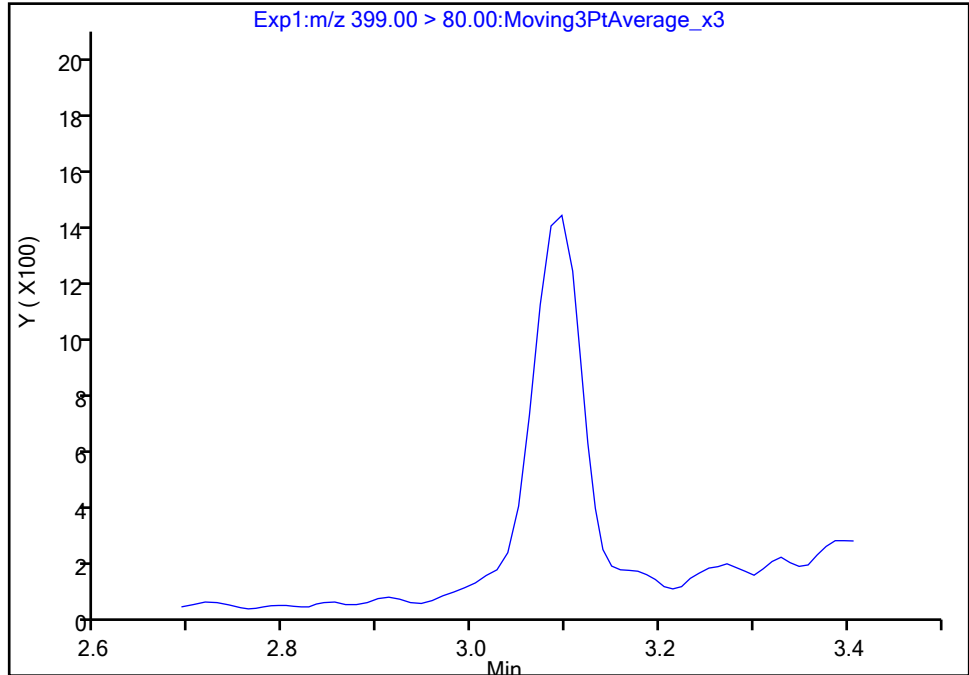
8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

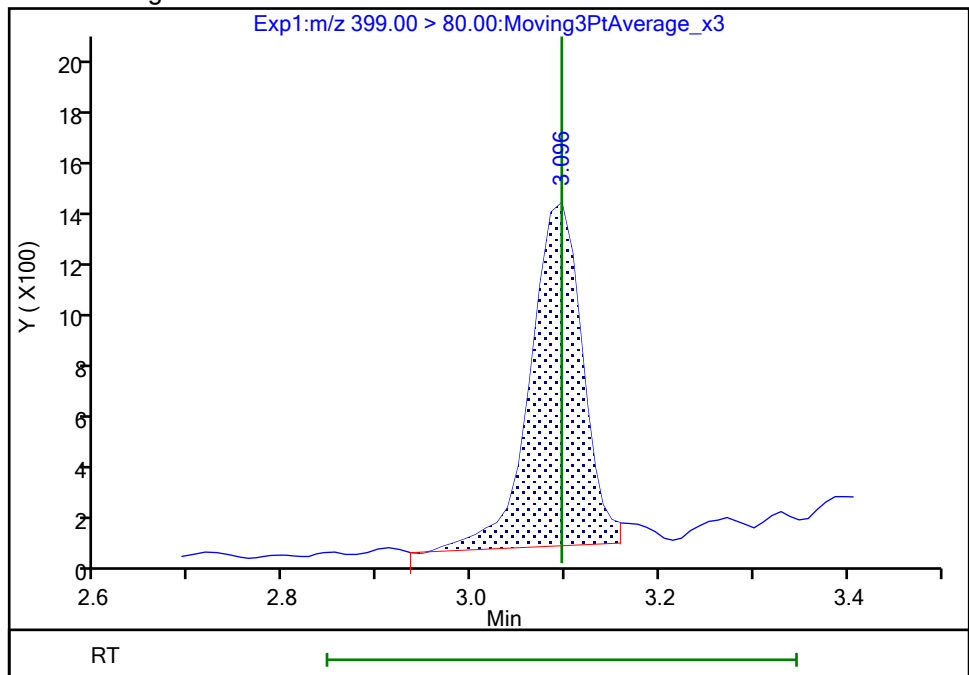
Not Detected

Expected RT: 3.10

Processing Integration Results



Manual Integration Results



RT: 3.10

Area: 5134

Amount: 0.009585

Amount Units: ng/ml

Reviewer: chirgwinb, 23-Sep-2020 10:09:34

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

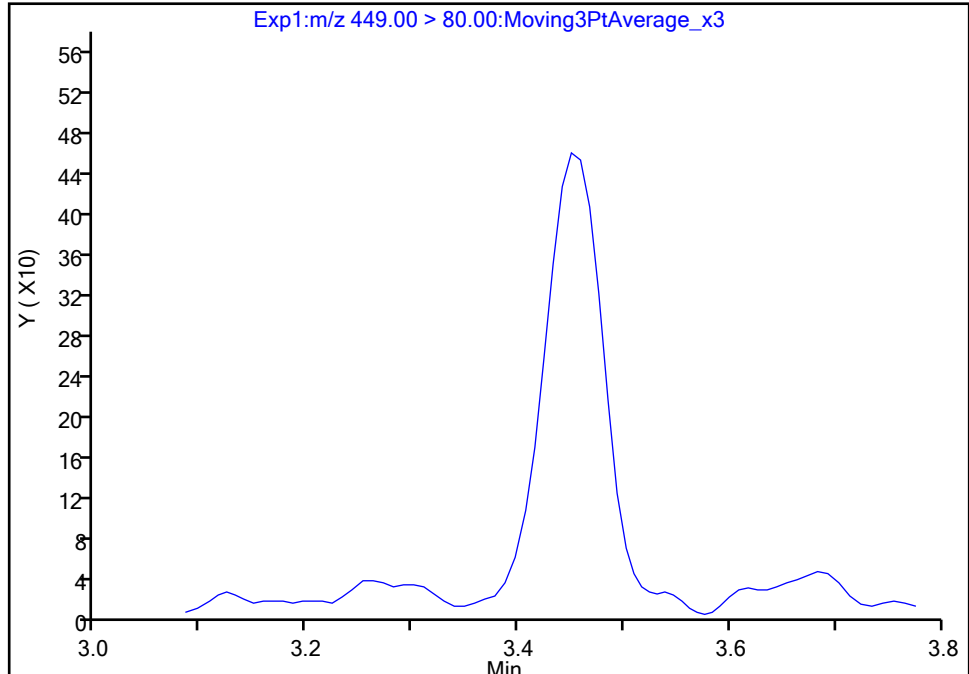
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d
Injection Date: 22-Sep-2020 20:20:13 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

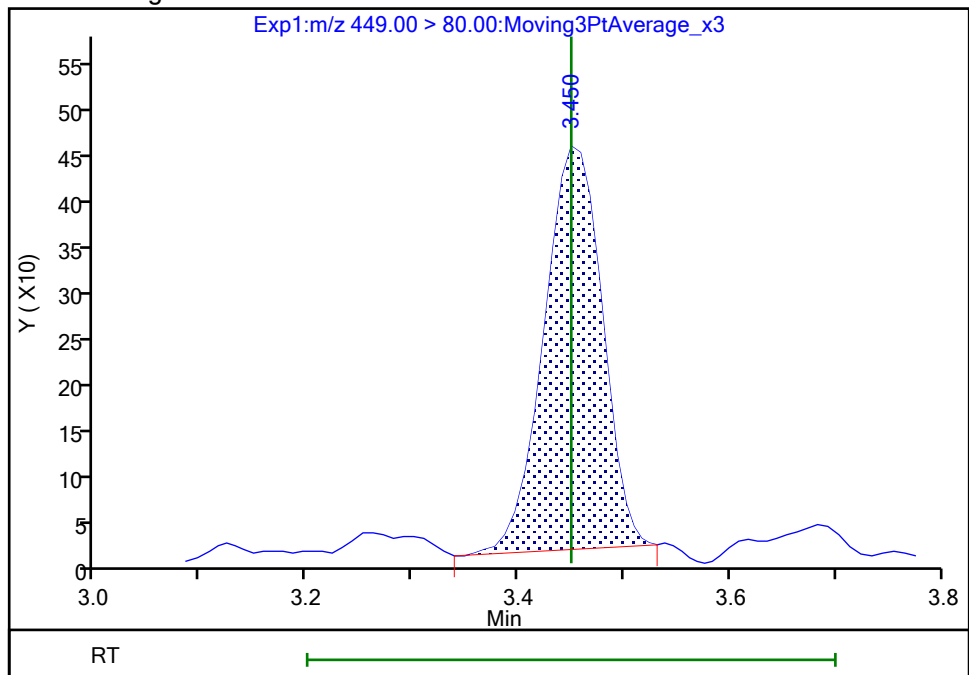
Signal: 1

Not Detected
Expected RT: 3.45

Processing Integration Results



Manual Integration Results



RT: 3.45
Area: 1674
Amount: 0.003559
Amount Units: ng/ml

Reviewer: chirgwinb, 23-Sep-2020 10:09:57

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

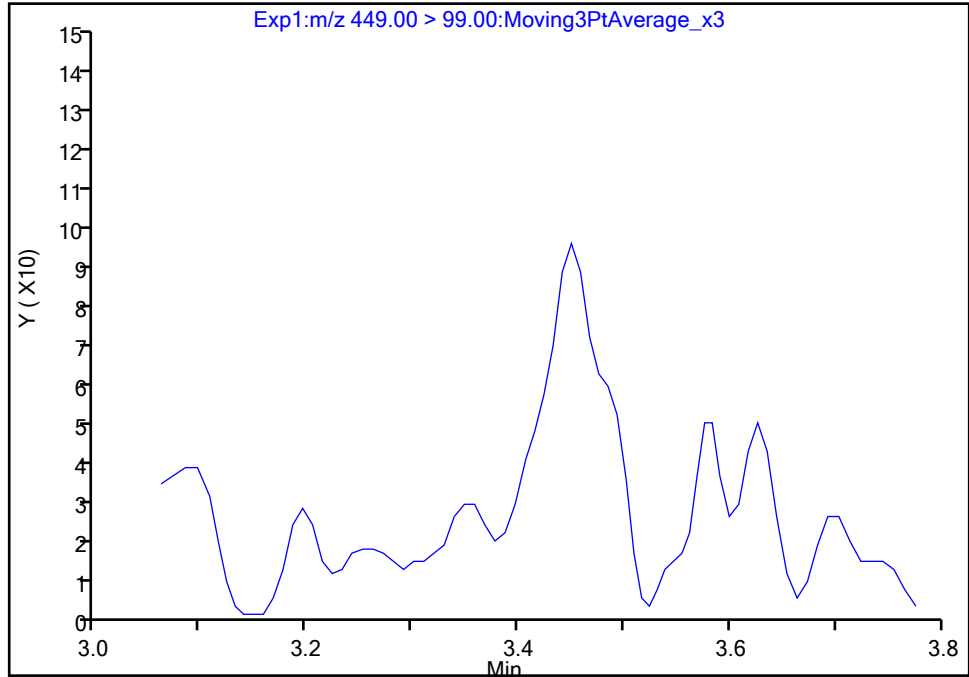
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d
Injection Date: 22-Sep-2020 20:20:13 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

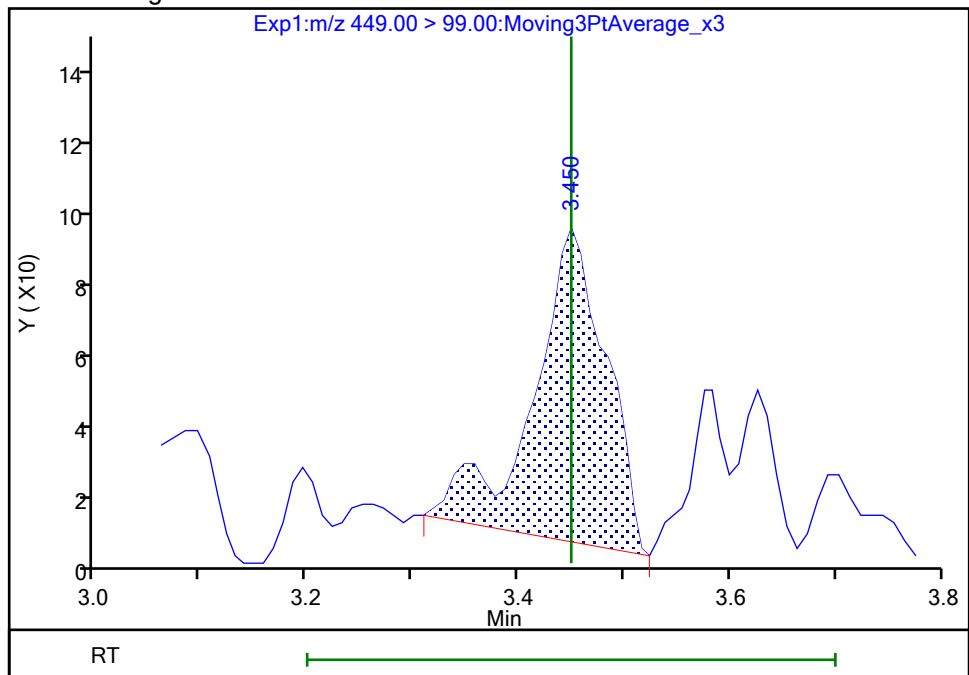
Not Detected
Expected RT: 3.45

Processing Integration Results



Manual Integration Results

RT: 3.45
Area: 407
Amount: 0.003559
Amount Units: ng/ml



Reviewer: chirgwinb, 23-Sep-2020 10:10:00

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

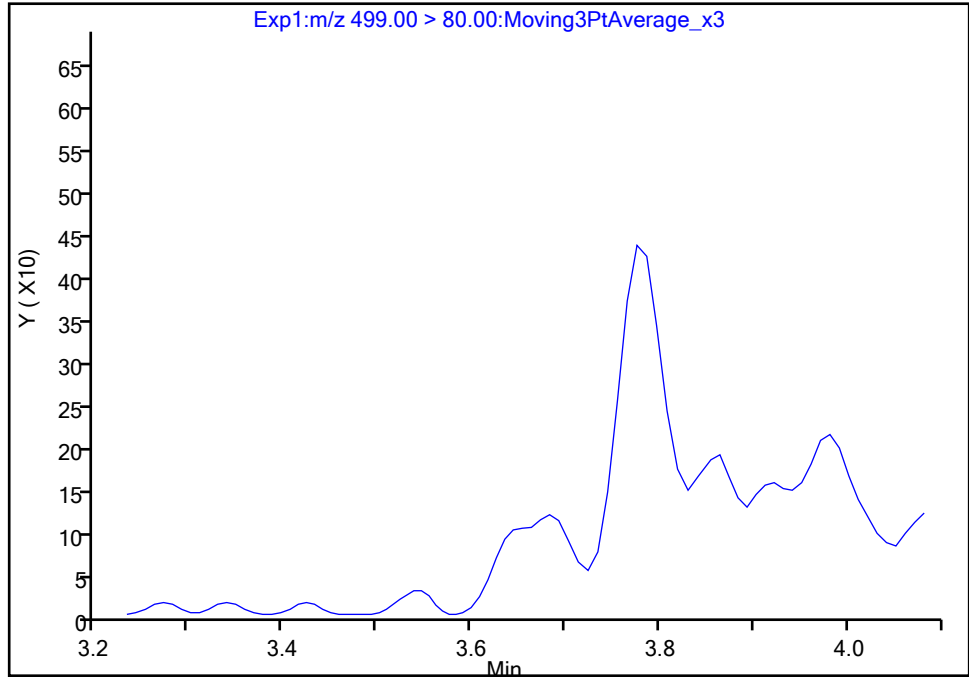
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d
Injection Date: 22-Sep-2020 20:20:13 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

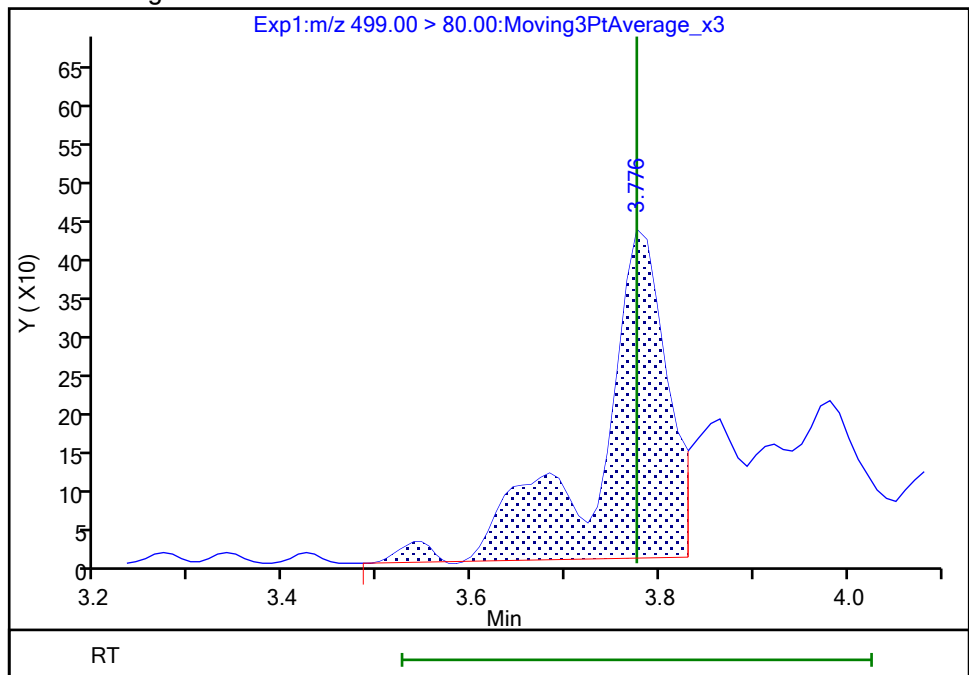
Signal: 1

Not Detected
Expected RT: 3.78

Processing Integration Results



Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 10:10:51

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

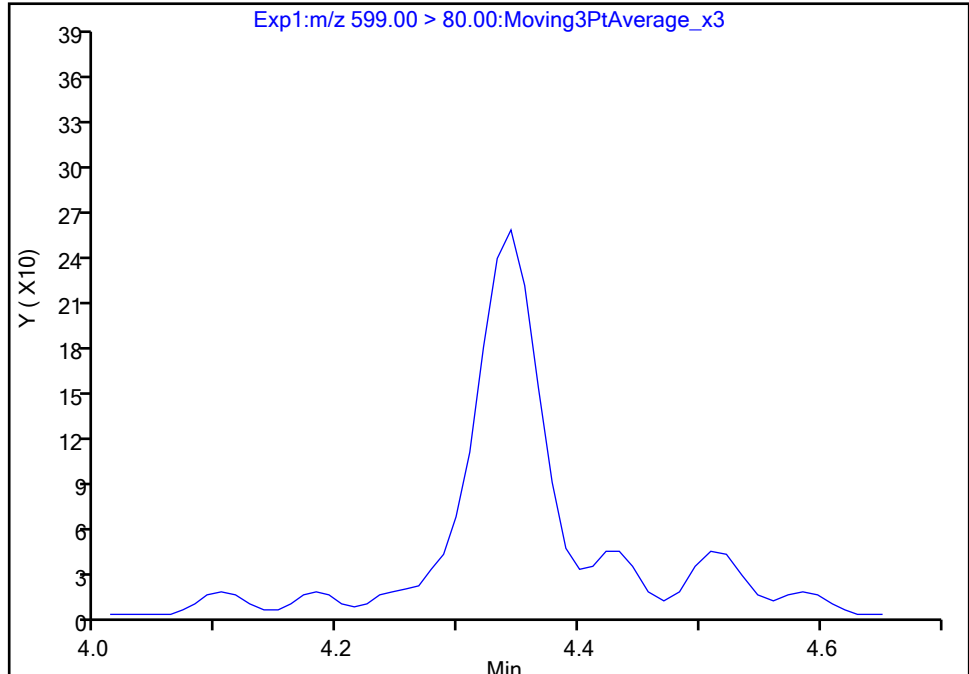
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d
Injection Date: 22-Sep-2020 20:20:13 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

29 Perfluorodecanesulfonic acid, CAS: 335-77-3

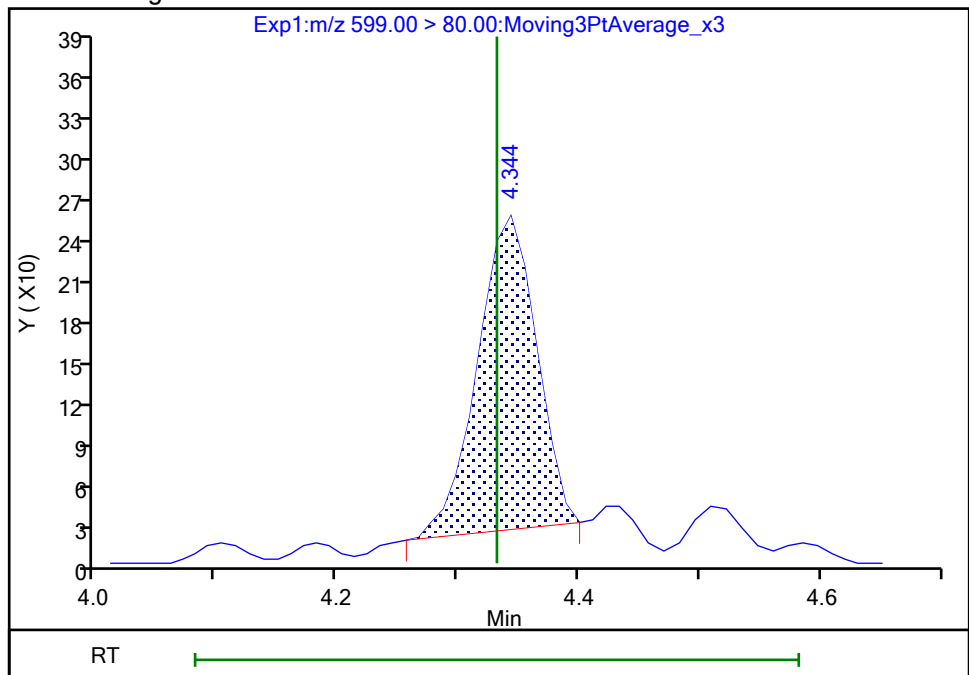
Signal: 1

Not Detected
Expected RT: 4.33

Processing Integration Results



Manual Integration Results



RT: 4.34
Area: 784
Amount: 0.002687
Amount Units: ng/ml

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d

Injection Date: 22-Sep-2020 20:20:13

Instrument ID: LC812

Lims ID: ICB

Client ID:

Operator ID: lc812tech

ALS Bottle#:

8

Worklist Smp#: 11

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

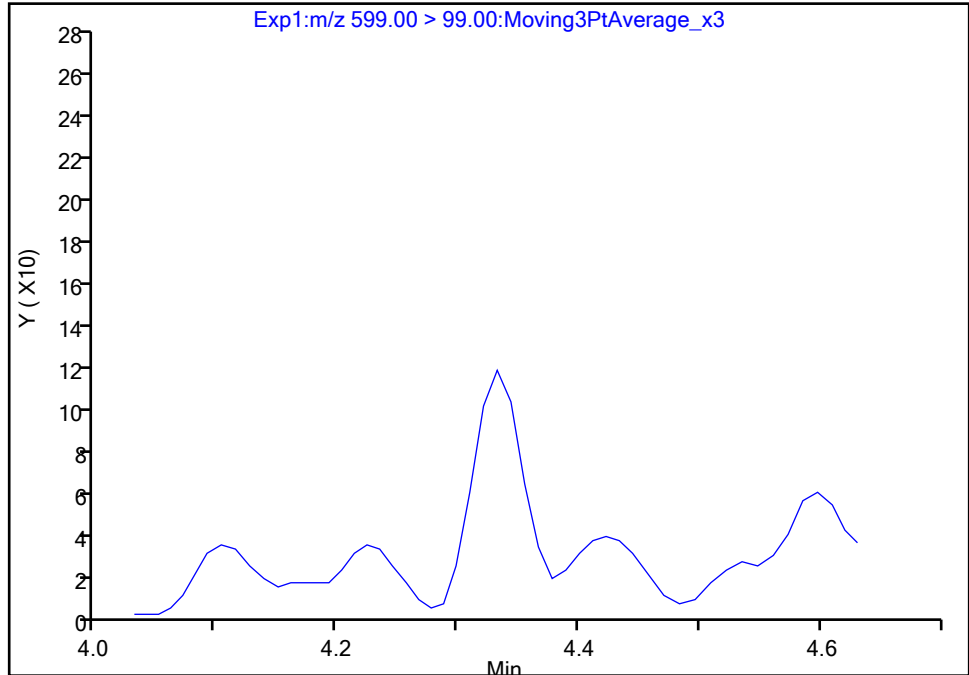
29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

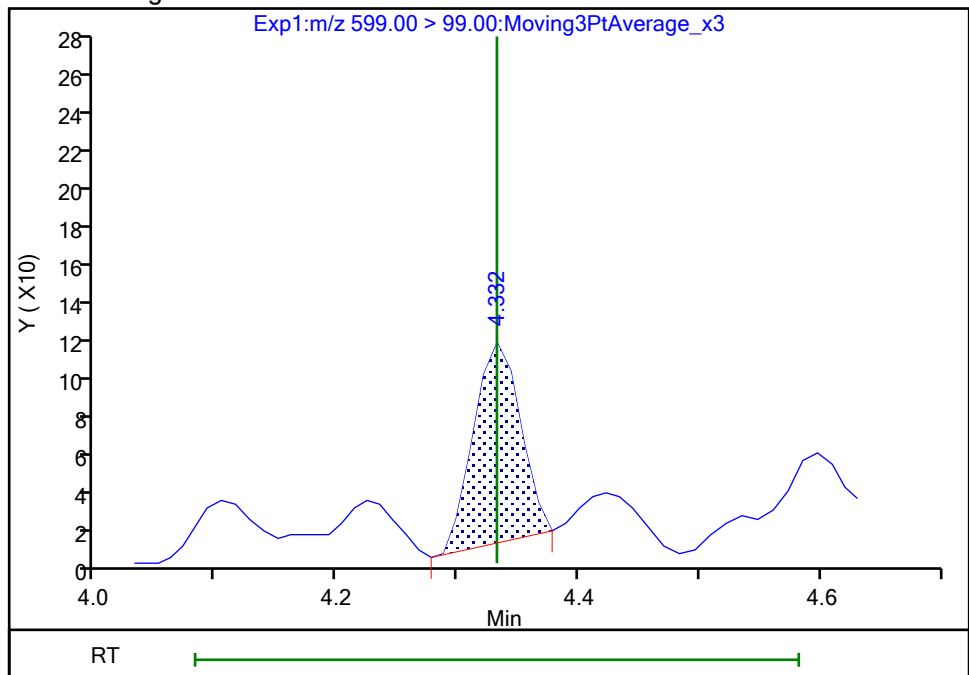
Not Detected

Expected RT: 4.33

Processing Integration Results



Manual Integration Results



RT: 4.33

Area: 283

Amount: 0.002687

Amount Units: ng/ml

Reviewer: chirgwinb, 23-Sep-2020 10:12:35

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d

Injection Date: 22-Sep-2020 20:20:13

Instrument ID: LC812

Lims ID: ICB

Client ID:

Operator ID: lc812tech

ALS Bottle#:

8

Worklist Smp#: 11

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

EXP1

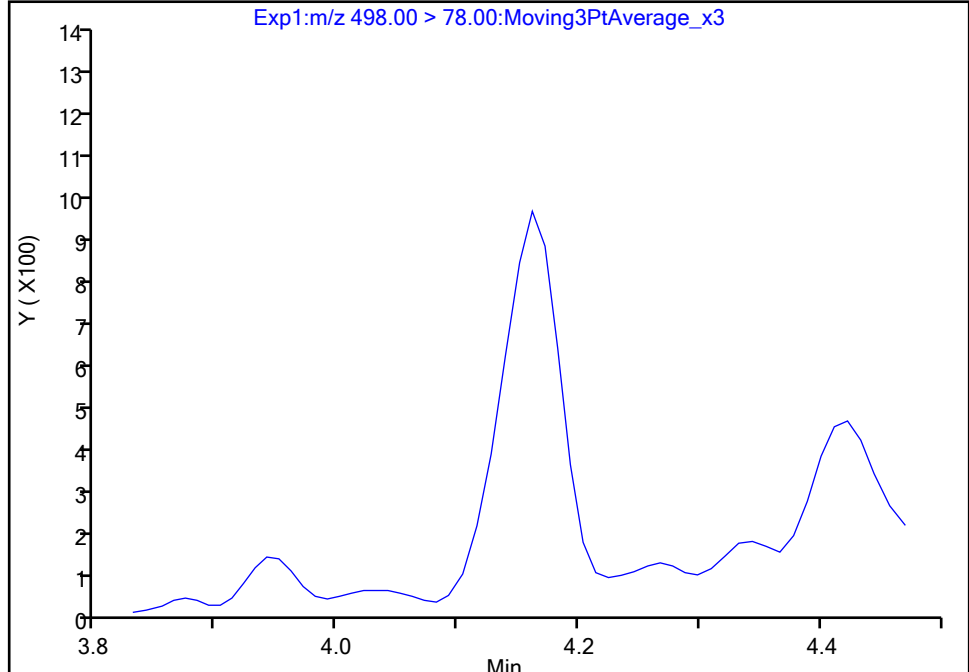
22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

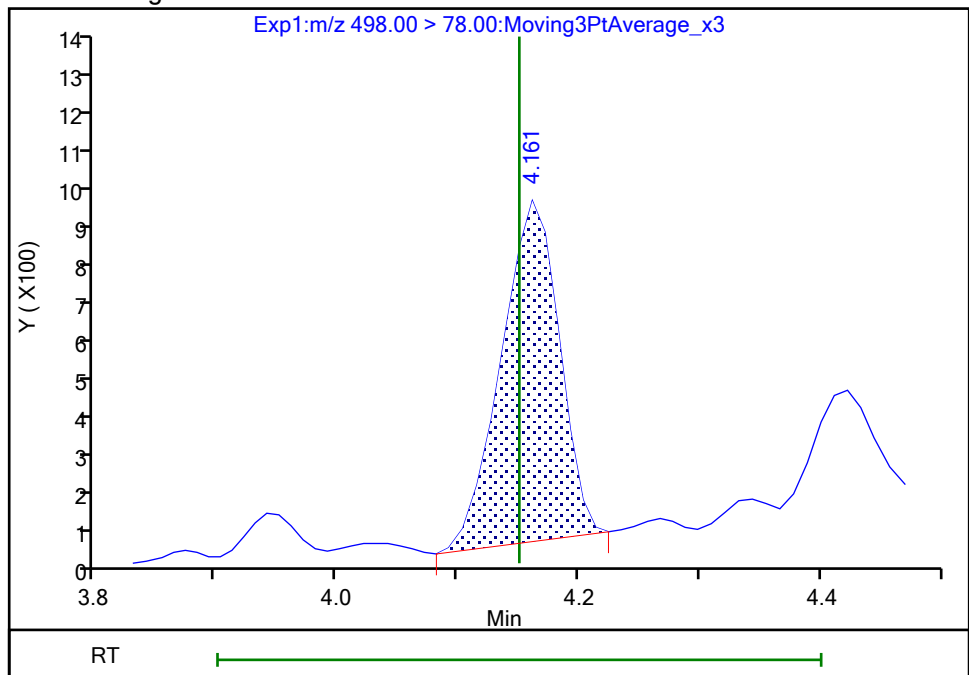
Not Detected

Expected RT: 4.15

Processing Integration Results



Manual Integration Results



RT: 4.16

Area: 2826

Amount: 0.004232

Amount Units: ng/ml

Reviewer: chirgwinb, 23-Sep-2020 10:12:15

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

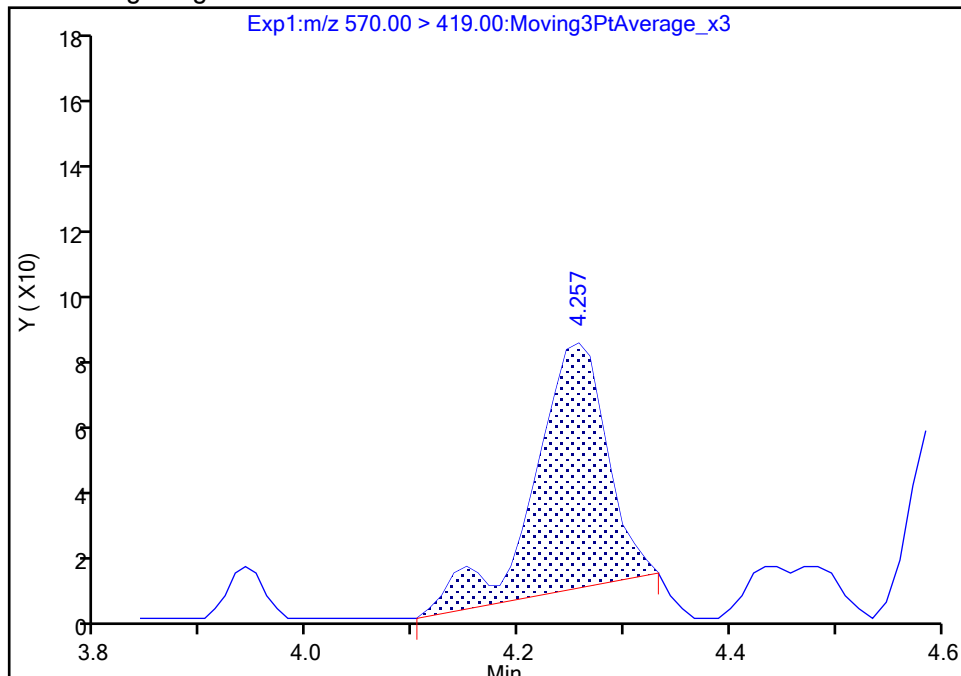
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d
Injection Date: 22-Sep-2020 20:20:13 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

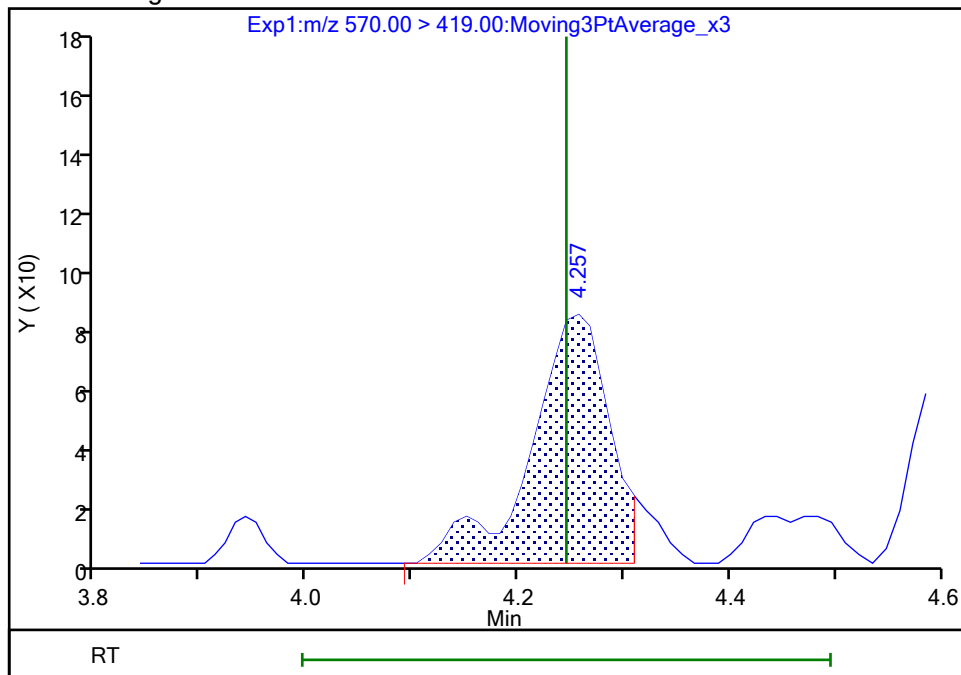
RT: 4.26
Area: 364
Amount: 0.016210
Amount Units: ng/ml

Processing Integration Results



RT: 4.26
Area: 435
Amount: 0.019371
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 23-Sep-2020 10:12:25
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 821 of 906

Eurofins TestAmerica, Burlington

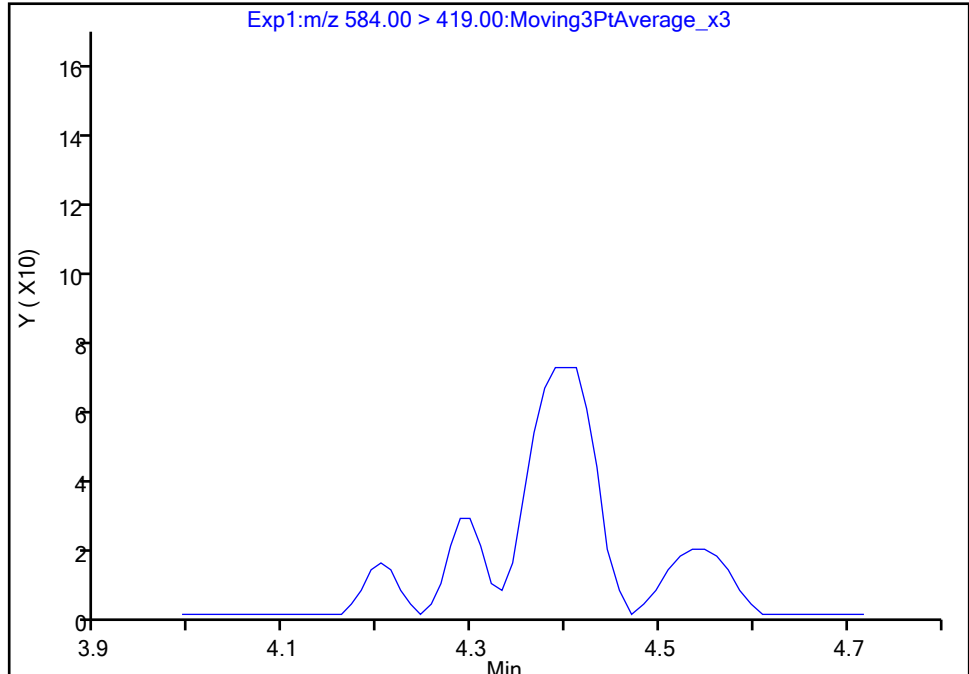
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d
Injection Date: 22-Sep-2020 20:20:13 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

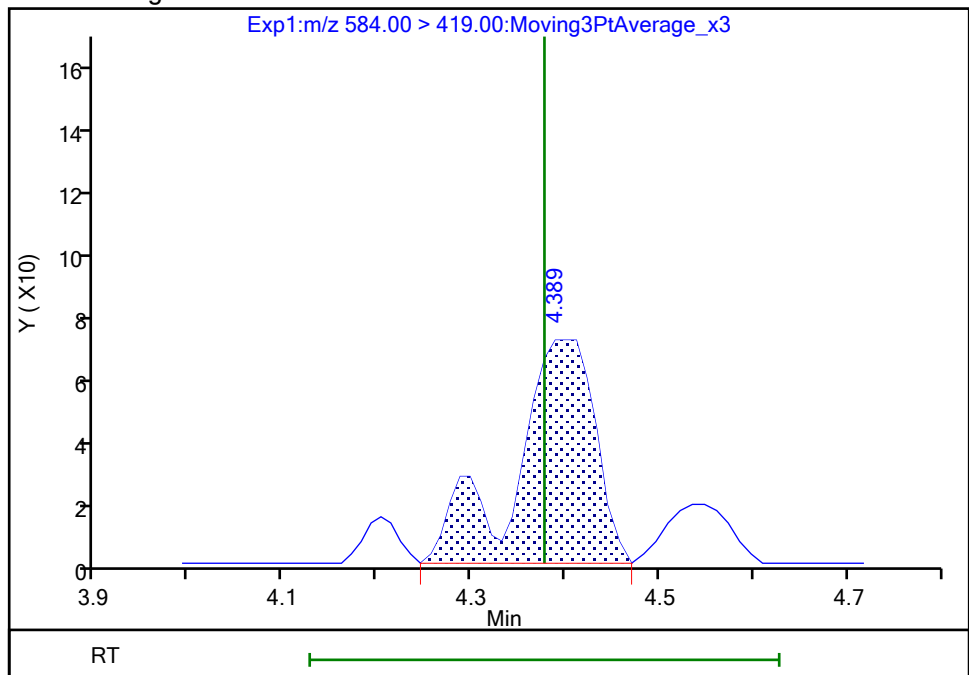
Signal: 1

Not Detected
Expected RT: 4.38

Processing Integration Results



Manual Integration Results



RT: 4.39
Area: 426
Amount: 0.017036
Amount Units: ng/ml

Eurofins TestAmerica, Burlington

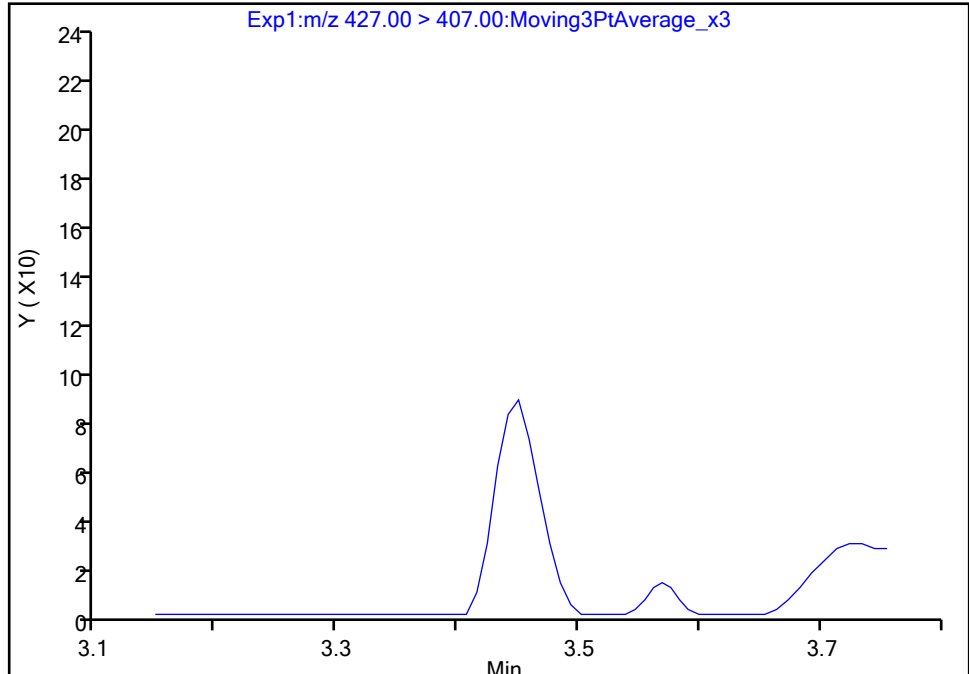
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d
Injection Date: 22-Sep-2020 20:20:13 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

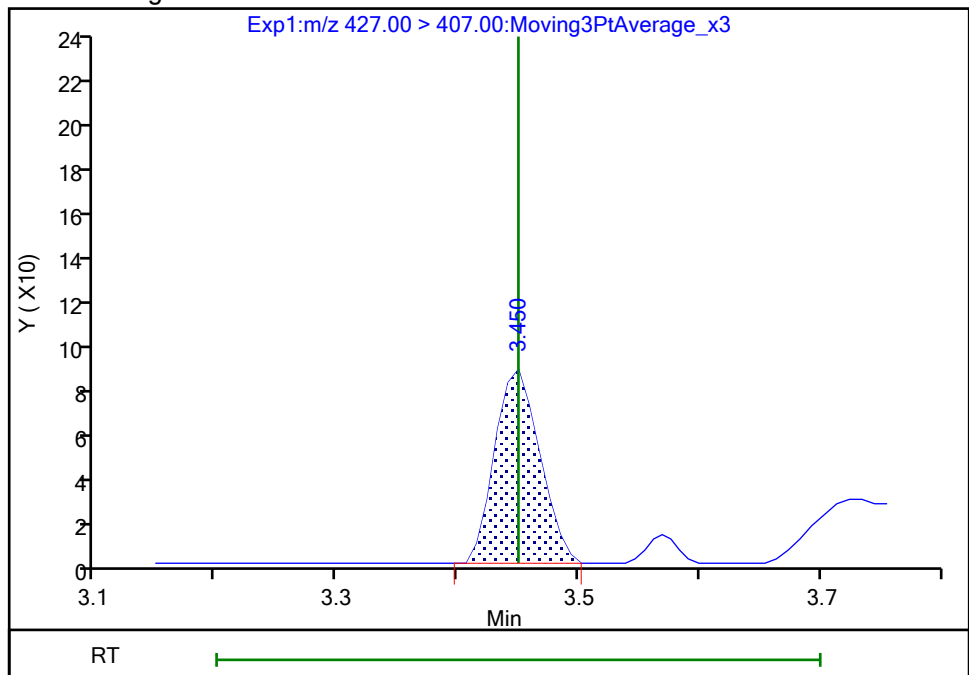
Signal: 1

Not Detected
Expected RT: 3.45

Processing Integration Results



Manual Integration Results



RT: 3.45
Area: 226
Amount: 0.004590
Amount Units: ng/ml

Eurofins TestAmerica, Burlington

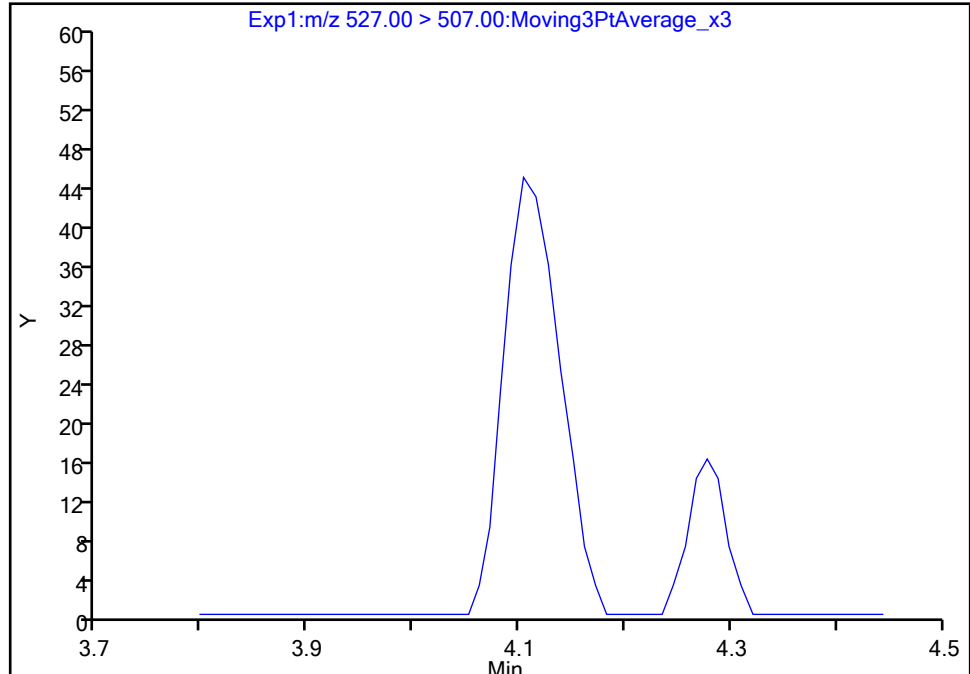
Data File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL11.d
Injection Date: 22-Sep-2020 20:20:13 Instrument ID: LC812
Lims ID: ICB
Client ID:
Operator ID: lc812tech ALS Bottle#: 8 Worklist Smp#: 11
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

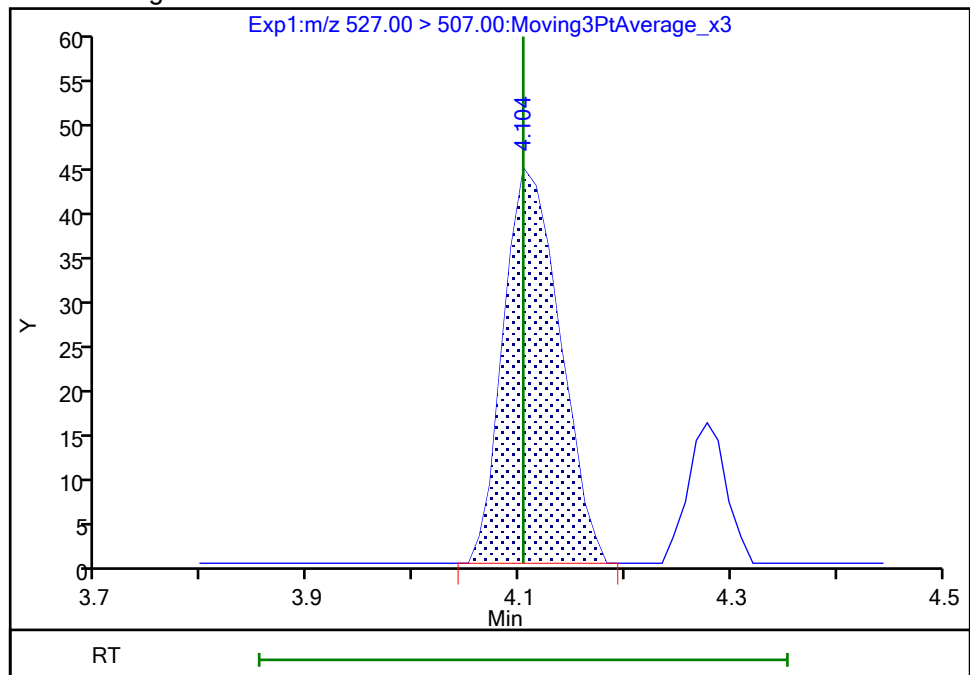
Signal: 1

Not Detected
Expected RT: 4.10

Processing Integration Results



Manual Integration Results



RT: 4.10
Area: 166
Amount: 0.005303
Amount Units: ng/ml

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: LCS 200-160391/2-A

Matrix: Water Lab File ID: PA201027A08.d

Analysis Method: 537 (modified) Date Collected: _____

Extraction Method: 3535 Date Extracted: 10/27/2020 09:15

Sample wt/vol: 250 (mL) Date Analyzed: 10/27/2020 17:47

Con. Extract Vol.: 10 (mL) Dilution Factor: 1

Injection Volume: 20 (uL) GC Column: C-18 ID: 4.6 (mm)

% Moisture: _____ GPC Cleanup: (Y/N) N

Analysis Batch No.: 160481 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	33.0		5.0	1.1
2706-90-3	Perfluoropentanoic acid (PFPeA)	32.4		2.0	1.1
307-24-4	Perfluorohexanoic acid (PFHxA)	34.9		2.0	0.83
375-85-9	Perfluoroheptanoic acid (PFHpA)	34.5		2.0	0.46
335-67-1	Perfluorooctanoic acid (PFOA)	34.5		2.0	0.98
375-95-1	Perfluorononanoic acid (PFNA)	36.2		2.0	0.58
335-76-2	Perfluorodecanoic acid (PFDA)	35.1		2.0	0.46
2058-94-8	Perfluoroundecanoic acid (PFUnA)	32.6		2.0	0.73
307-55-1	Perfluorododecanoic acid (PFDoA)	37.0		2.0	0.46
72629-94-8	Perfluorotridecanoic acid (PFTriA)	35.0		2.0	0.43
376-06-7	Perfluorotetradecanoic acid (PFTeA)	39.6		2.0	0.59
375-73-5	Perfluorobutanesulfonic acid (PFBS)	32.0		2.0	0.63
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	30.4		2.0	0.67
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	33.4		2.0	0.39
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	30.0		2.0	0.87
335-77-3	Perfluorodecanesulfonic acid (PFDS)	31.1		2.0	0.48
754-91-6	Perfluorooctanesulfonamide (PFOSA)	50.6		2.0	0.57
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	32.2		5.0	0.79
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	34.3		5.0	0.93
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	32.0		5.0	0.72
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	32.3		2.0	0.66

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 200-160391/2-A
 Matrix: Water Lab File ID: PA201027A08.d
 Analysis Method: 537 (modified) Date Collected: _____
 Extraction Method: 3535 Date Extracted: 10/27/2020 09:15
 Sample wt/vol: 250 (mL) Date Analyzed: 10/27/2020 17:47
 Con. Extract Vol.: 10 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: C-18 ID: 4.6 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 160481 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	104		50-150
STL01892	13C4 PFHpA	101		50-150
STL00990	13C4 PFOA	94		50-150
STL00991	13C4 PFOS	105		50-150
STL00995	13C5 PFNA	90		50-150
STL00992	13C4 PFBA	111		25-150
STL00993	13C2 PFHxA	105		50-150
STL00996	13C2 PFDA	89		50-150
STL00997	13C2 PFUnA	91		50-150
STL00998	13C2 PFDoA	72		50-150
STL01056	13C8 FOSA	47		25-150
STL01893	13C5 PFPeA	114		25-150
STL02116	13C2 PFTeDA	74		50-150
STL02118	d3-NMeFOSAA	84		50-150
STL02117	d5-NEtFOSAA	82		50-150
STL02279	M2-6:2 FTS	98		25-150
STL02280	M2-8:2 FTS	104		25-150
STL02337	13C3 PFBS	102		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A08.d
 Lims ID: LCS 200-160391/2-A
 Client ID:
 Sample Type: LCS
 Inject. Date: 27-Oct-2020 17:47:02 ALS Bottle#: 5 Worklist Smp#: 8
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: LCS 200-160391/2-A
 Misc. Info.: 200-0043412-008 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Method: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 28-Oct-2020 13:19:14 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1652

First Level Reviewer: khanphomeea

Date: 28-Oct-2020 07:53:30

Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.981	1.981	0.0	0.574	990166	1.39		111	14029	
2 Perfluorobutanoic acid										
212.90 > 169.00	1.981	1.990	-0.009	1.000	611494	0.8259		82.6	225	
D 3 13C5 PFPeA										
267.90 > 223.00	2.312	2.326	-0.014	0.670	726607	1.42		114	5299	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.326	2.326	0.0	1.006	497504	0.8104		81.0	30.5	
D 47 13C3 PFBS										M
301.90 > 80.00	2.340	2.339	0.001	0.678	740892	1.19		102	270879	M
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.340	2.353	-0.013	1.000	508345	0.8005	Target=2.07	90.6	1648	
298.90 > 99.00	2.340	2.353	-0.013	1.000	252971		2.01(1.04-3.11)		484	
D 60 M2-4:2 FTS										M
329.00 > 81.00	2.653	2.665	-0.012	0.769	56770	1.21		104	123	M
61 1H,1H,2H,2H-perfluorohexanesulfo										
327.00 > 307.00	2.653	2.665	-0.012	1.000	64961	0.8266		88.5	1674	
D 7 13C2 PFHxA										
315.00 > 270.00	2.691	2.703	-0.012	0.780	689039	1.31		105	3169	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.703	2.703	0.0	1.005	484042	0.8721	Target=12.44	87.2	295	
313.00 > 119.00	2.703	2.703	0.0	1.005	42690		11.34(6.22-18.66)		128	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.703	2.703	0.0	0.880	459878	0.8345	Target=3.64	89.0	1610	
349.00 > 99.00	2.703	2.703	0.0	0.880	136695		3.36(1.82-5.46)		574	
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.810	2.810	0.0	0.815	114227	2.33		186	2901	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
67 Perfluoro(2-propoxypropanoic) ac										
329.10 > 285.00	2.810	2.818	-0.008	1.000	105493	0.5425		54.3	49.4	
D 11 18O2 PFHxS										
403.00 > 84.00	3.073	3.084	-0.011	0.891	550350	1.23		104	3639	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.073	3.084	-0.011	1.000	390407	0.7595	Target=4.60	83.5	1243	M
399.00 > 99.00	3.073	3.084	-0.011	1.000	85520		4.57(2.30-6.91)		206	M
D 9 13C4 PFHpA										
367.00 > 322.00	3.085	3.084	0.001	0.894	607253	1.27		101	3106	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.085	3.084	0.001	1.000	419924	0.8626	Target=3.34	86.3	207	
363.00 > 169.00	3.085	3.084	0.001	1.000	130503		3.22(1.67-5.01)		469	
77 DONA										
377.00 > 251.00	3.124	3.124	0.0	0.830	881016	0.7486	Target=2.44	79.5	2147	
377.00 > 85.00	3.124	3.124	0.0	0.830	401082		2.20(1.22-3.67)		1122	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.433	3.441	-0.008	0.912	369510	0.8350	Target=7.08	87.7	2091	
449.00 > 99.00	3.433	3.441	-0.008	0.912	52071		7.10(3.54-10.63)		770	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.441	3.441	0.0	0.997	69359	1.16		97.8	456	
13 1H,1H,2H,2H-perfluorooctanesulfo										M
427.00 > 407.00	3.441	3.441	0.0	1.000	37243	0.7990		84.3	475	M
D 14 13C4 PFOA										
417.00 > 372.00	3.450	3.450	0.0	1.000	577086	1.18		94.2	3992	
* 62 13C2 PFOA										
415.00 > 370.00	3.450	3.450	0.0		622217	1.25			4259	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.450	3.458	-0.008	1.000	411174	0.8627	Target=2.29	86.3	310	
413.00 > 169.00	3.450	3.458	-0.008	1.000	196214		2.10(1.14-3.43)		666	M
D 18 13C4 PFOS										
503.00 > 80.00	3.766	3.765	0.001	1.091	456453	1.25		105	2230	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.766	3.765	0.001	1.000	311609	0.7507	Target=7.10	80.9	314	M
499.00 > 99.00	3.766	3.765	0.001	1.000	45072		6.91(3.55-10.64)		334	M
D 19 13C5 PFNA										
468.00 > 423.00	3.787	3.786	0.0	1.098	466185	1.13		90.3	5722	
20 Perfluorononanoic acid										
463.00 > 419.00	3.787	3.786	0.0	1.000	344036	0.9059	Target=5.83	90.6	152	
463.00 > 169.00	3.787	3.786	0.0	1.000	64649		5.32(2.91-8.74)		1344	
69 9-Chlorohexadecafluoro-3-oxanona										
531.00 > 351.00	3.922	3.922	0.0	1.042	263796	0.7221		77.5	2271	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.052	4.052	0.0	1.076	264578	0.8066	Target=3.38	84.0	1841	
549.00 > 99.00	4.052	4.052	0.0	1.076	68248		3.88(1.69-5.08)		485	
D 23 13C2 PFDA										
515.00 > 470.00	4.072	4.082	-0.010	1.180	439605	1.11		88.8	3343	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
24 Perfluorodecanoic acid										
513.00 > 469.00	4.082	4.082	0.0	1.002	304941	0.8764	Target=6.81 6.84(3.41-10.22)	87.6	687	
513.00 > 169.00	4.072	4.082	-0.010	1.000	44555				540	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.082	4.092	-0.010	1.183	87349	1.24		104	269	
25 1H,1H,2H,2H-perfluorodecanesulfo										
527.00 > 507.00	4.092	4.092	0.0	1.002	23303	0.8071		84.2	744	M
D 21 13C8 FOSA										
506.00 > 78.00	4.139	4.139	0.0	1.200	375698	0.5887		47.1	2712	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.139	4.139	0.0	1.000	355461	1.27		127	1115	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.214	4.214	0.0	1.221	23794	1.06		84.4	186	
28 N-methylperfluorooctanesulfonami										
570.00 > 419.00	4.214	4.224	-0.010	1.000	14480	0.8061		80.6	82.1	M
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.310	4.309	0.001	1.144	213713	0.7786	Target=3.31 3.30(1.66-4.97)	80.8	1672	
599.00 > 99.00	4.310	4.309	0.001	1.144	64792				583	
D 30 13C2 PFUnA										
565.00 > 520.00	4.332	4.343	-0.011	1.256	338356	1.13		90.5	4695	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.344	4.343	0.001	1.003	217366	0.8142	Target=6.57 5.73(3.28-9.85)	81.4	387	
563.00 > 169.00	4.332	4.343	-0.011	1.000	37918				863	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.344	4.343	0.001	1.259	24924	1.03		82.3	565	
33 N-ethylperfluorooctanesulfonamid										
584.00 > 419.00	4.355	4.355	0.0	1.003	15655	0.8576		85.8	332	M
66 11-Chloroeicosafuoro-3-oxaundec										
631.00 > 451.00	4.433	4.422	0.011	1.177	226690	0.7194		76.4	3664	
D 36 13C2 PFDaA										
615.00 > 570.00	4.561	4.561	0.0	1.322	282838	0.8952		71.6	2798	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.573	4.561	0.012	1.003	204289	0.9258	Target=5.16 4.68(2.58-7.75)	92.6	393	
613.00 > 169.00	4.561	4.561	0.0	1.000	43643				715	
74 1H,1H,2H,2H-perfluorododecanesul										
627.00 > 607.00	4.585	4.585	0.0	1.123	11509	0.7174		74.4	3295	
75 Perfluorododecanesulfonic acid (										
699.00 > 80.00	4.736	4.736	0.0	1.258	58235	0.6612	Target=0.45 0.44(0.22-0.67)	68.3	380	
699.00 > 99.00	4.736	4.736	0.0	1.258	132984				1003	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.771	4.772	-0.001	1.046	163792	0.8740	Target=3.30 2.99(1.65-4.95)	87.4	192	
663.00 > 169.00	4.771	4.772	-0.001	1.046	54728				1475	
D 43 13C2 PFTeDA										
715.00 > 670.00	4.969	4.969	0.0	1.440	209007	0.9286		74.3	2744	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.969	4.969	0.0	1.000	37921	0.99	Target=1.06 1.10(0.53-1.59)	99.0	1336	
713.00 > 219.00	4.959	4.969	-0.010	0.998	34426				1202	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 44 13C2 PFHxDA										
815.00 > 770.00	5.329	5.329	0.0	1.545	224042	0.8783		70.3	3227	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.329	5.329	0.0	1.000	152332	0.9547	Target=3.06	95.5	178	
813.00 > 169.00	5.329	5.329	0.0	1.000	54356		2.80(1.53-4.58)		1506	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.685	5.694	-0.009	1.067	165206	1.23	Target=2.82	123	485	
913.00 > 169.00	5.685	5.694	-0.009	1.067	59846		2.76(1.41-4.24)		1286	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A08.d

Injection Date: 27-Oct-2020 17:47:02

Instrument ID: LC812

Lims ID: LCS 200-160391/2-A

Client ID:

Operator ID: lc812tech

ALS Bottle#: 5

Worklist Smp#: 8

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

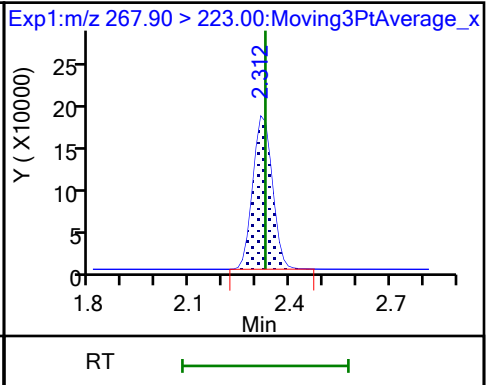
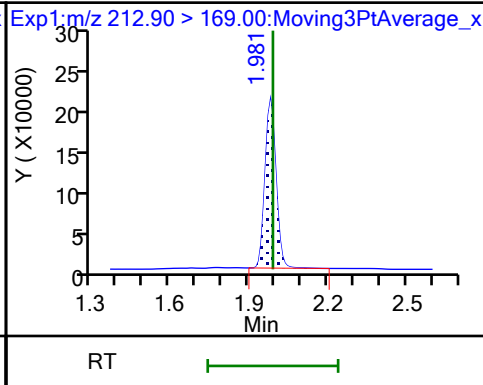
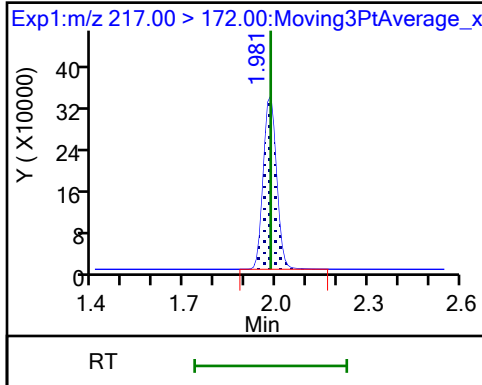
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid

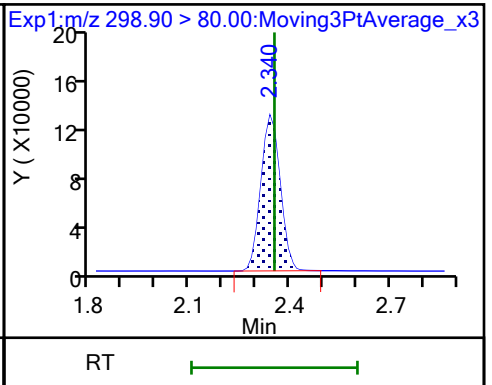
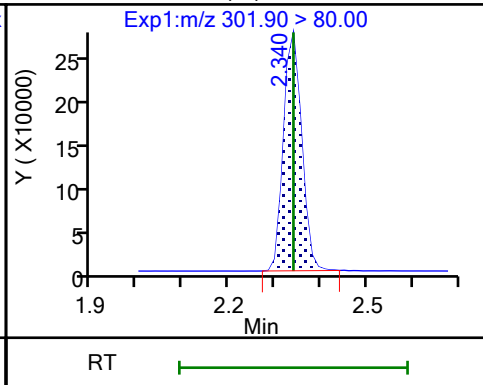
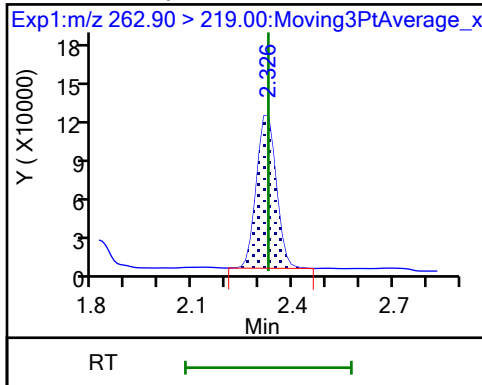
D 3 13C5 PFPeA



4 Perfluoropentanoic acid

D 47 13C3 PFBS (M)

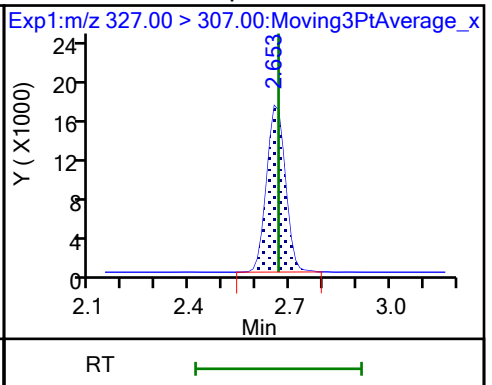
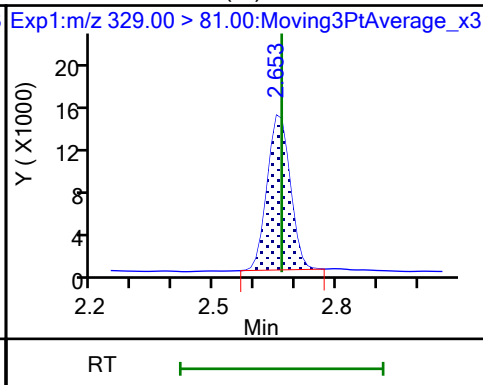
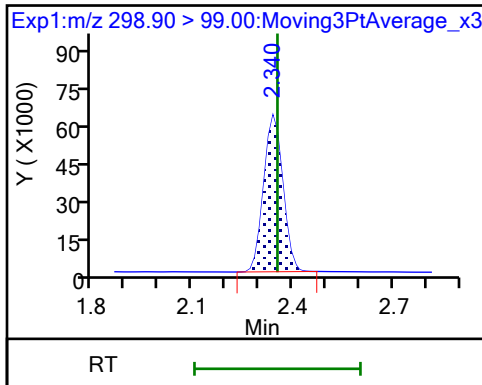
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

D 60 M2-4:2 FTS (M)

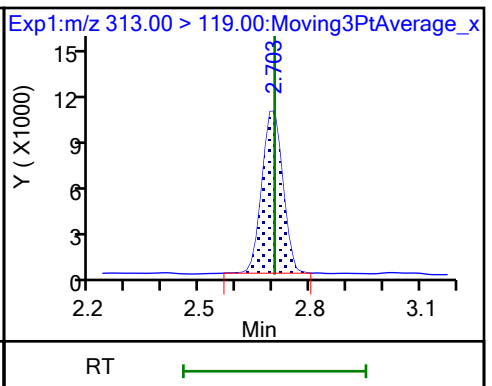
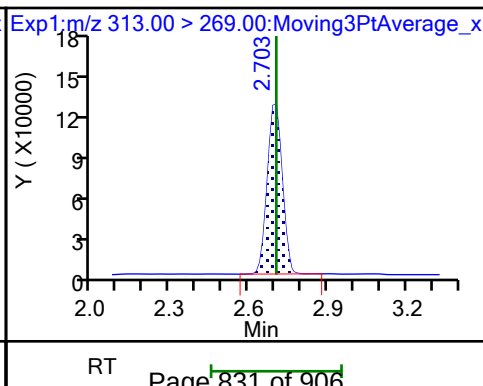
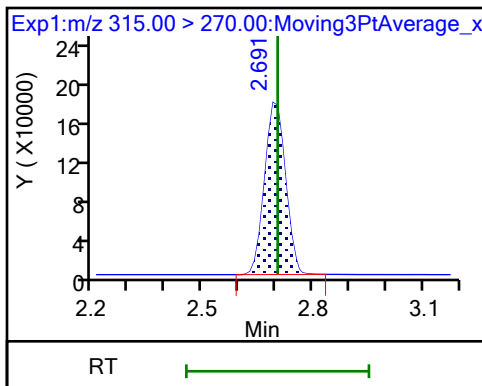
61 1H,1H,2H,2H-perfluorohexanesulfo

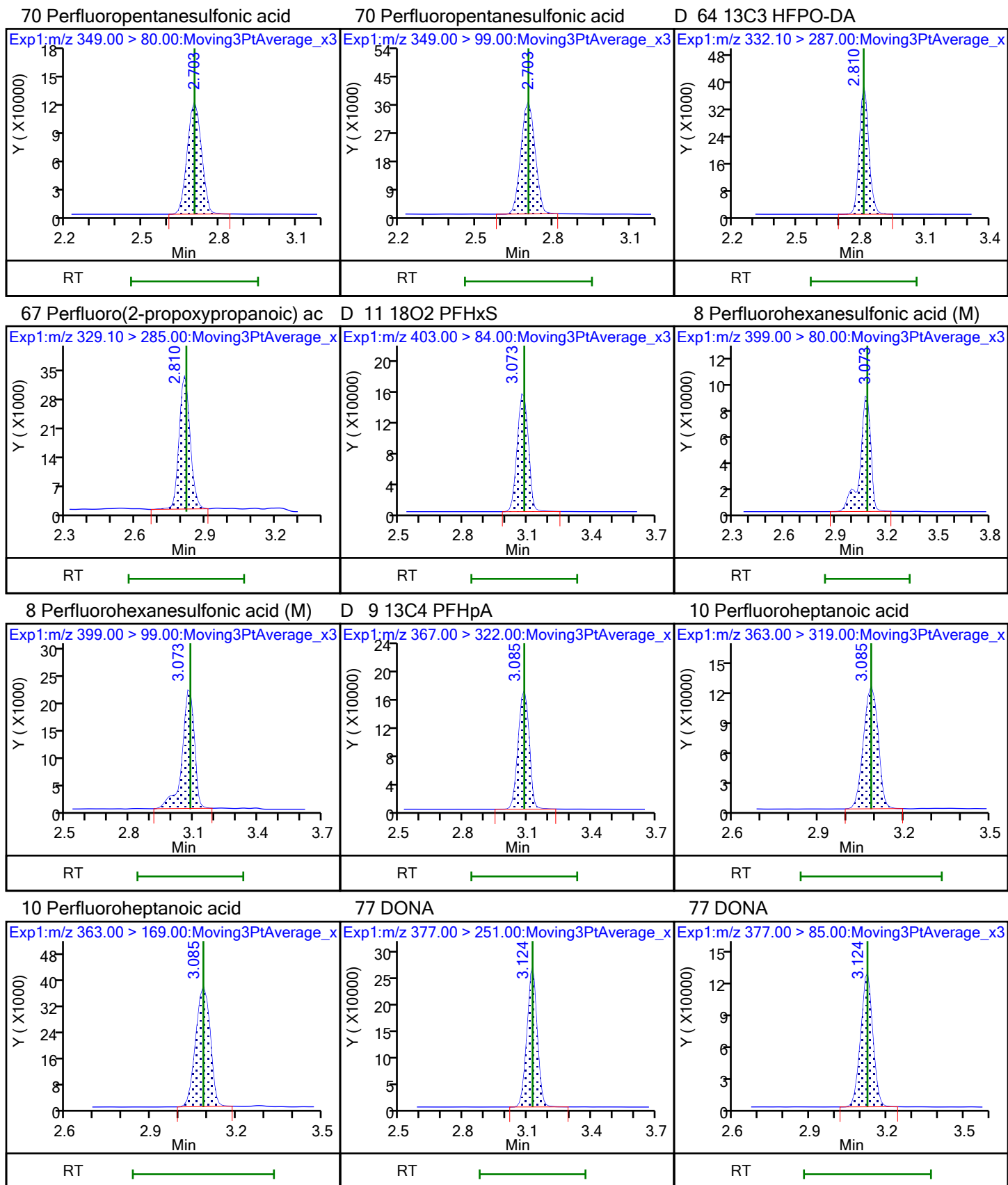


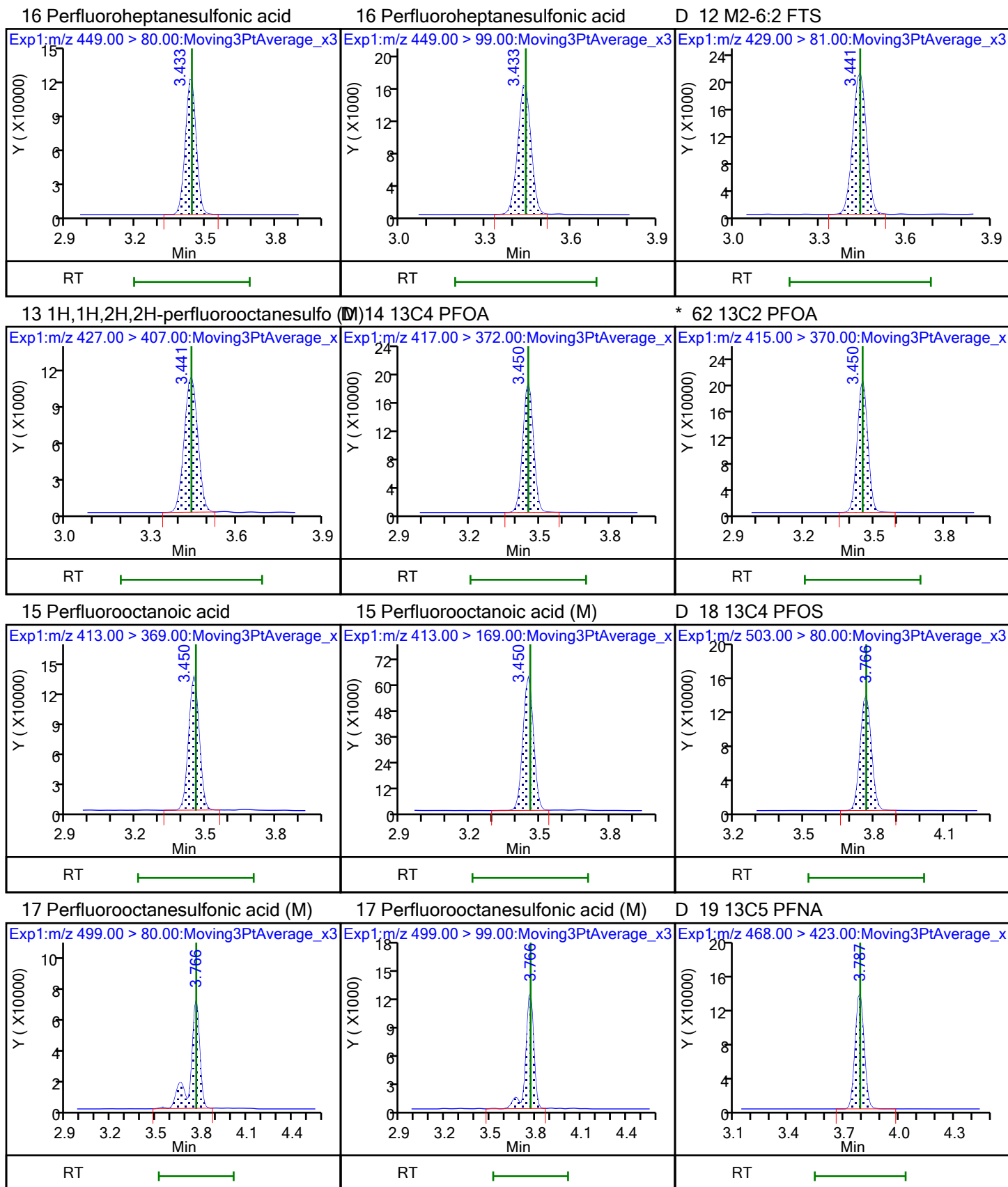
D 7 13C2 PFHxA

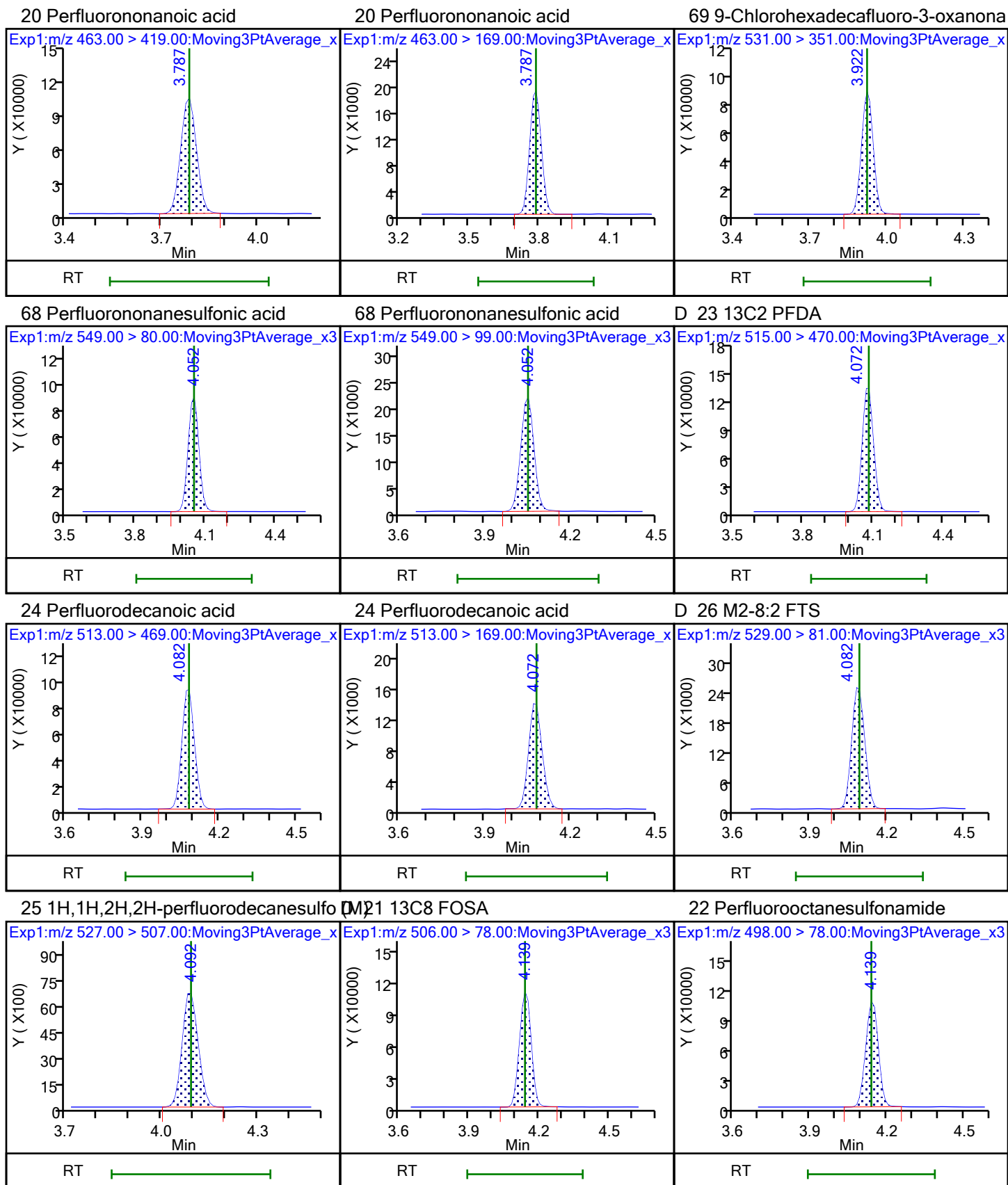
6 Perfluorohexanoic acid

6 Perfluorohexanoic acid



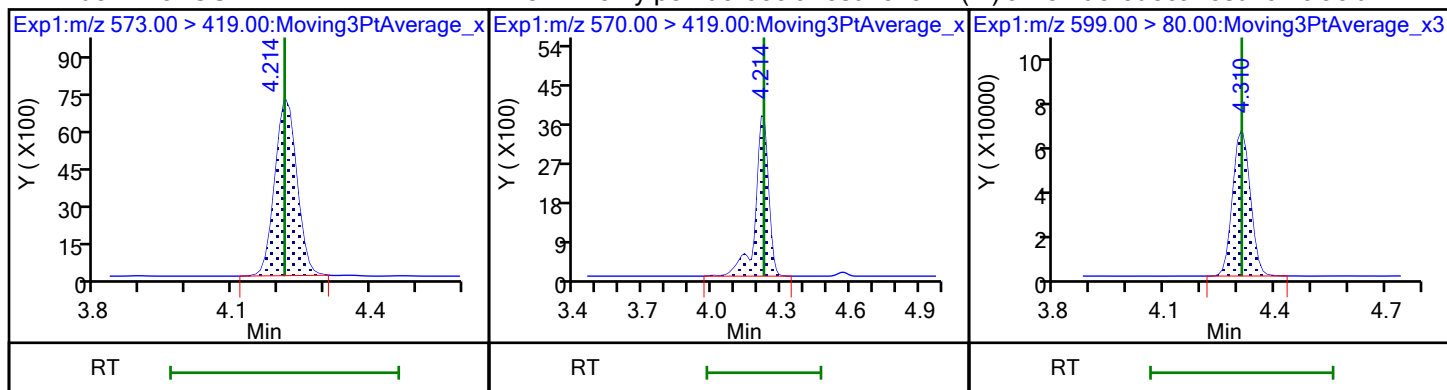






D 27 d3-NMeFOSAA

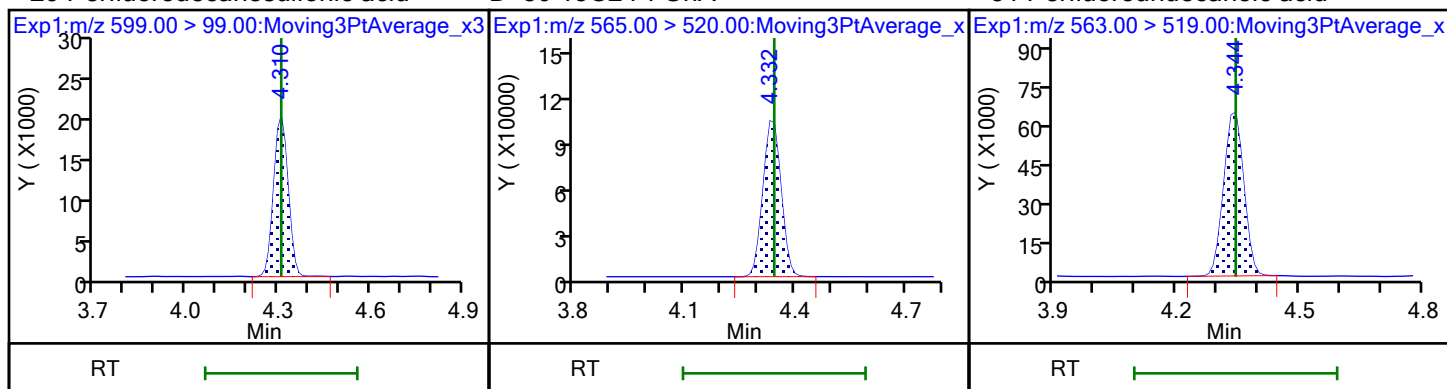
28 N-methylperfluorooctanesulfonami (M29 Perfluorodecanesulfonic acid



29 Perfluorodecanesulfonic acid

D 30 13C2 PFUnA

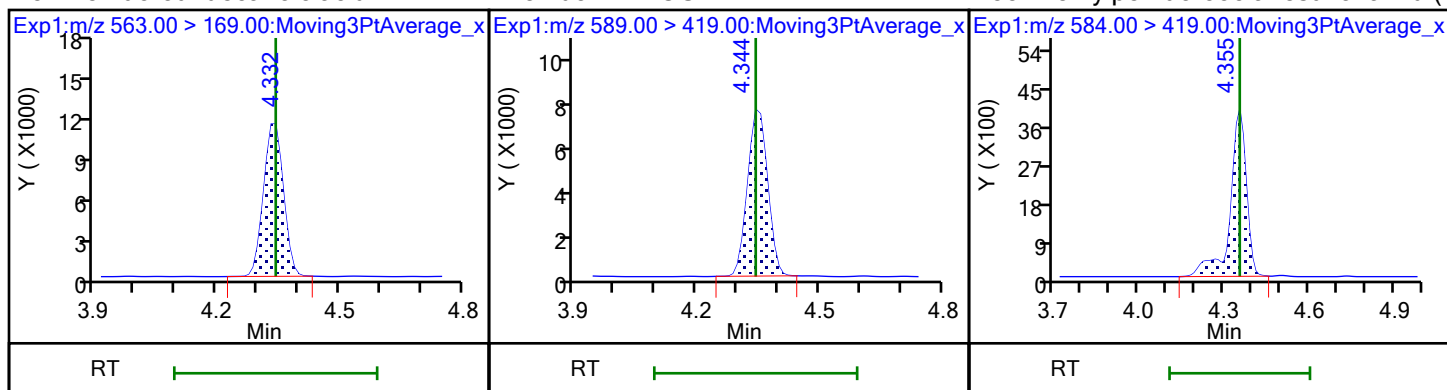
31 Perfluoroundecanoic acid



31 Perfluoroundecanoic acid

D 32 d5-NEtFOSAA

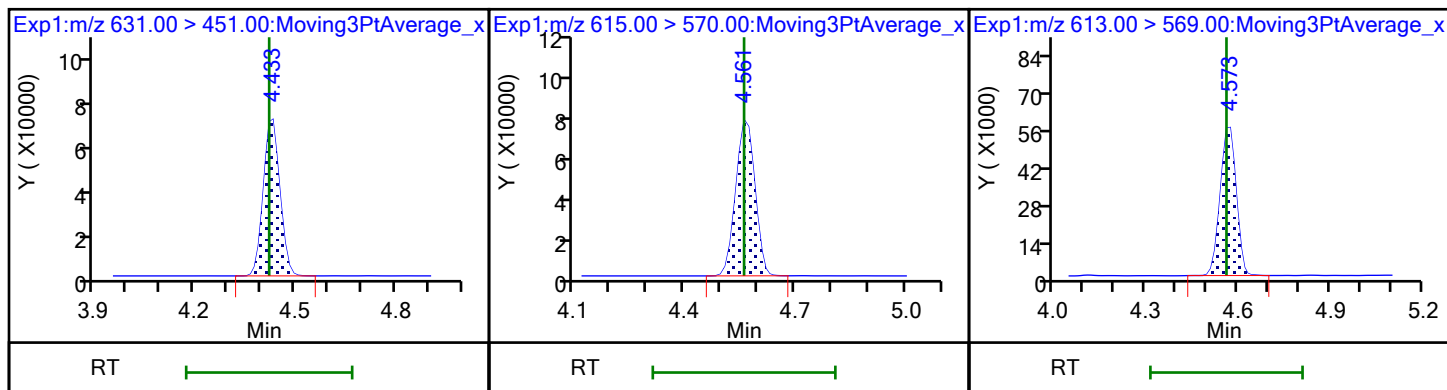
33 N-ethylperfluorooctanesulfonamid (M



66 11-Chloroeicosafuoro-3-oxaundec

D 36 13C2 PFDaA

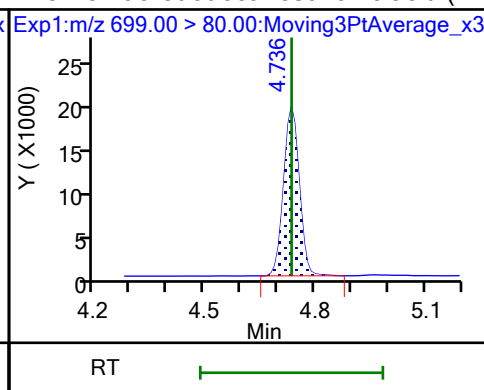
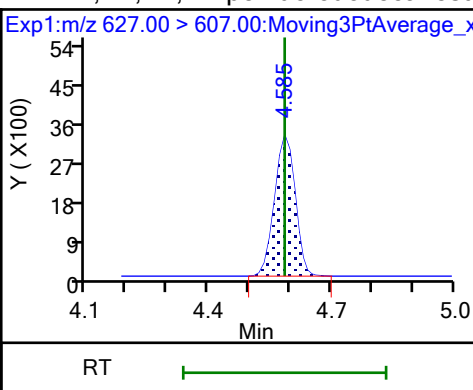
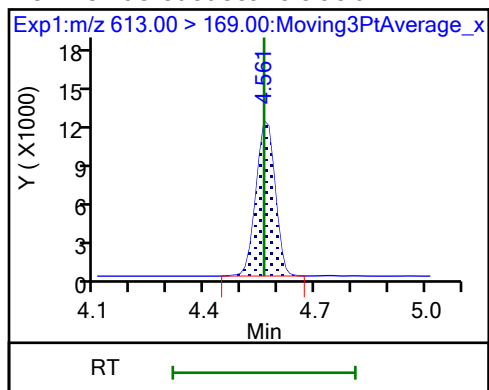
37 Perfluorododecanoic acid



37 Perfluorododecanoic acid

74 1H,1H,2H,2H-perfluorododecanesul

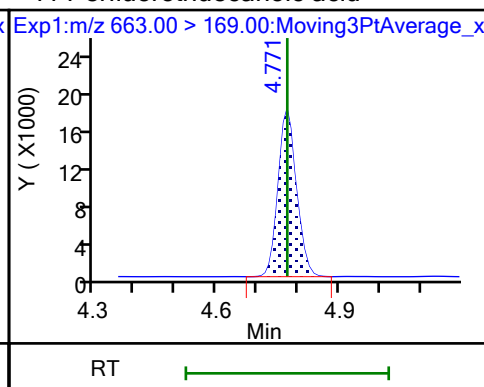
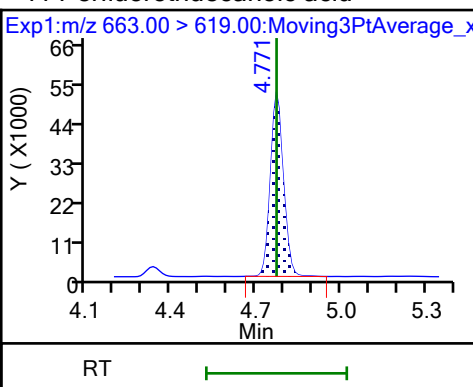
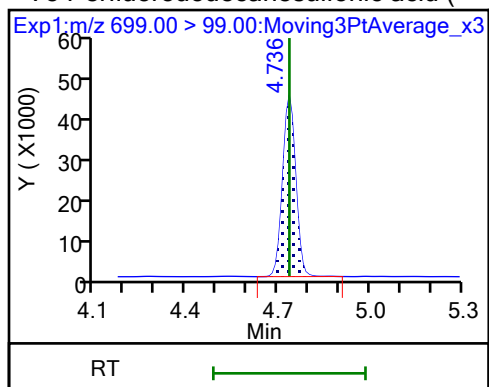
75 Perfluorododecanesulfonic acid (



75 Perfluorododecanesulfonic acid (

41 Perfluorotridecanoic acid

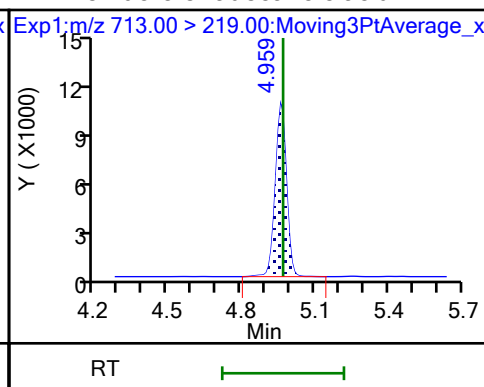
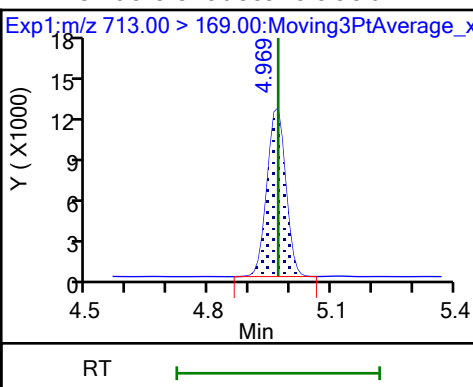
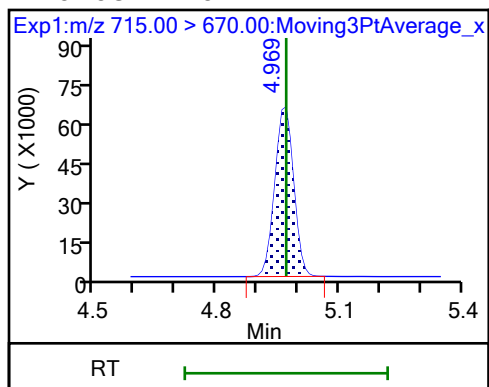
41 Perfluorotridecanoic acid



D 43 13C2 PFTeDA

42 Perfluorotetradecanoic acid

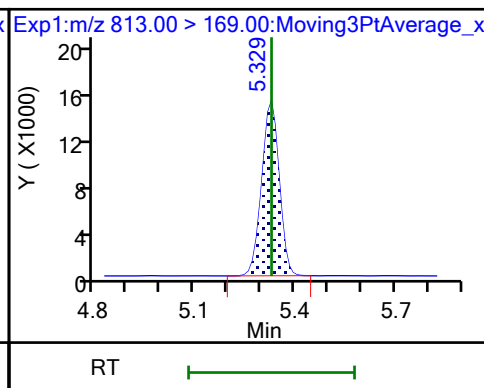
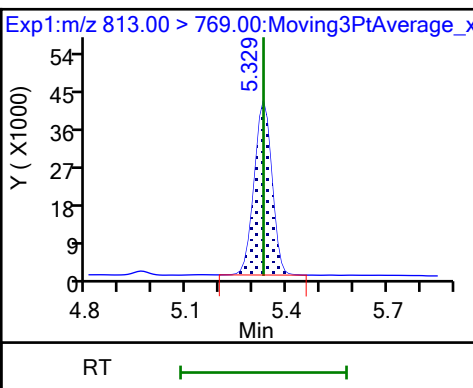
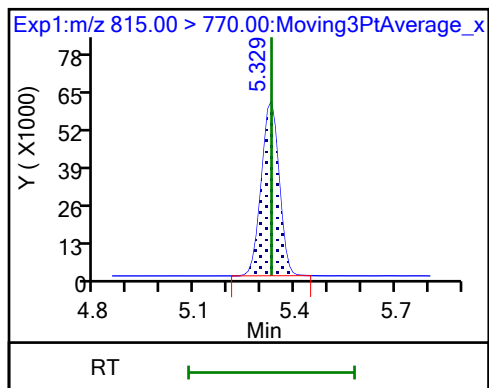
42 Perfluorotetradecanoic acid



D 44 13C2 PFHxDA

45 Perfluorohexadecanoic acid

45 Perfluorohexadecanoic acid

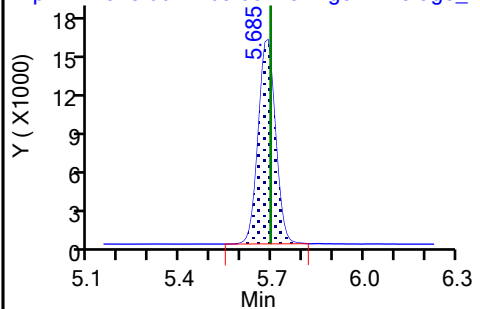
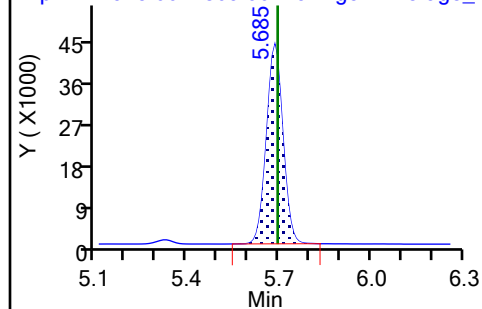


46 Perfluorooctadecanoic acid

46 Perfluorooctadecanoic acid

Exp1:m/z 913.00 > 869.00:Moving3PtAverage_x

Exp1:m/z 913.00 > 169.00:Moving3PtAverage_x



Eurofins TestAmerica, Burlington

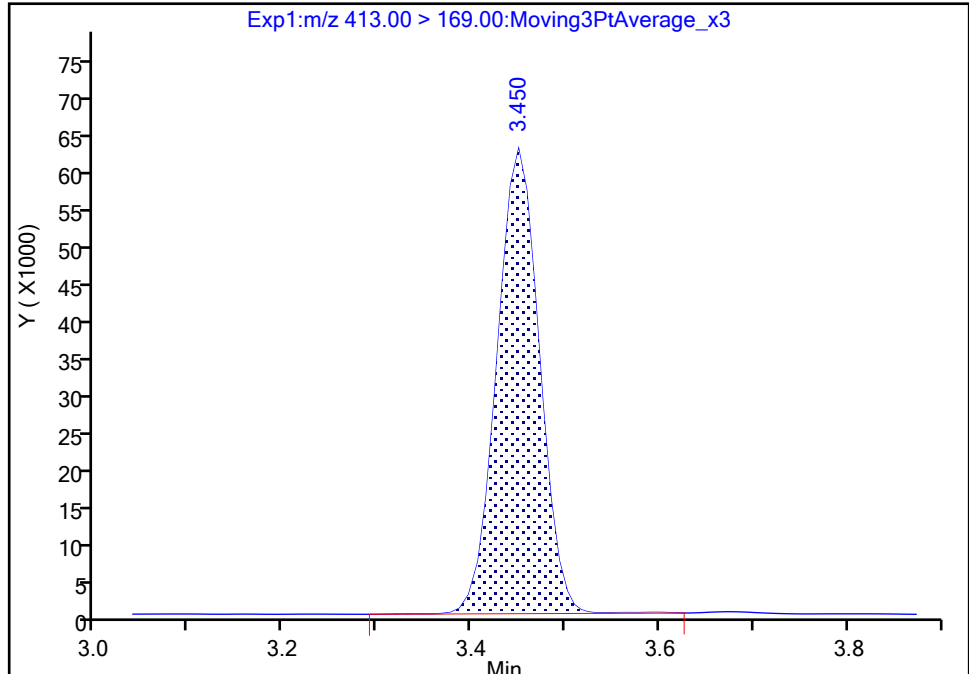
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A08.d
Injection Date: 27-Oct-2020 17:47:02 Instrument ID: LC812
Lims ID: LCS 200-160391/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

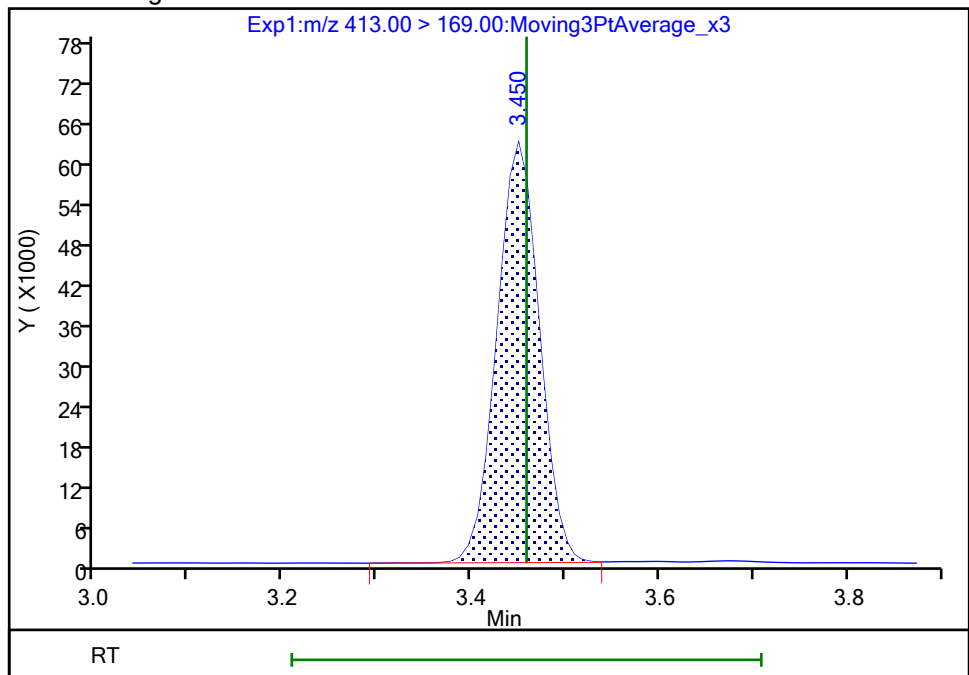
RT: 3.45
Area: 196609
Amount: 0.862654
Amount Units: ng/ml

Processing Integration Results



RT: 3.45
Area: 196214
Amount: 0.862654
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 07:52:24

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

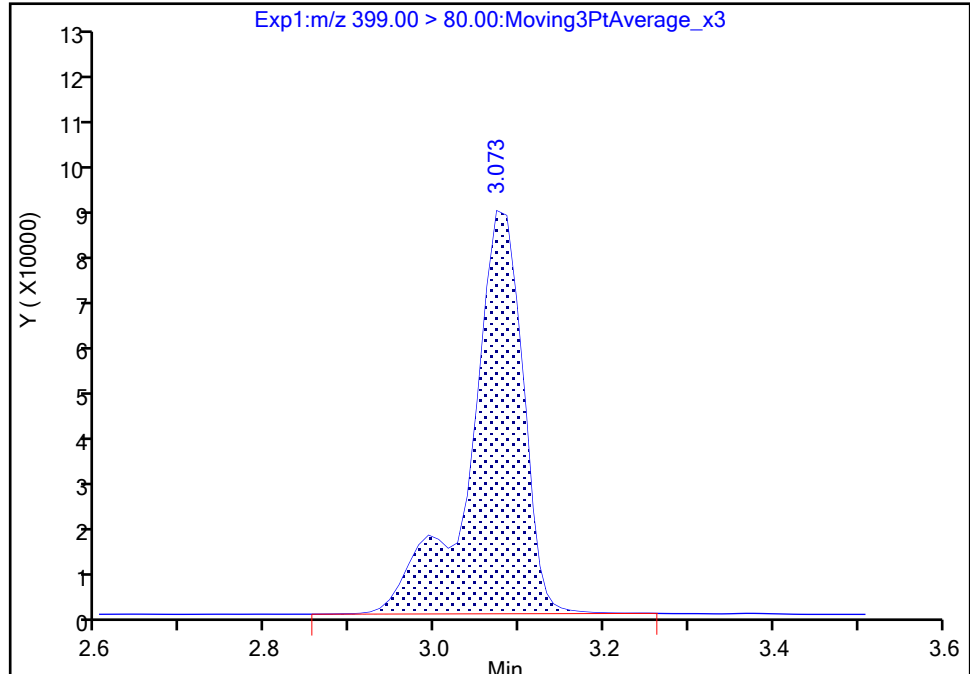
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A08.d
Injection Date: 27-Oct-2020 17:47:02 Instrument ID: LC812
Lims ID: LCS 200-160391/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

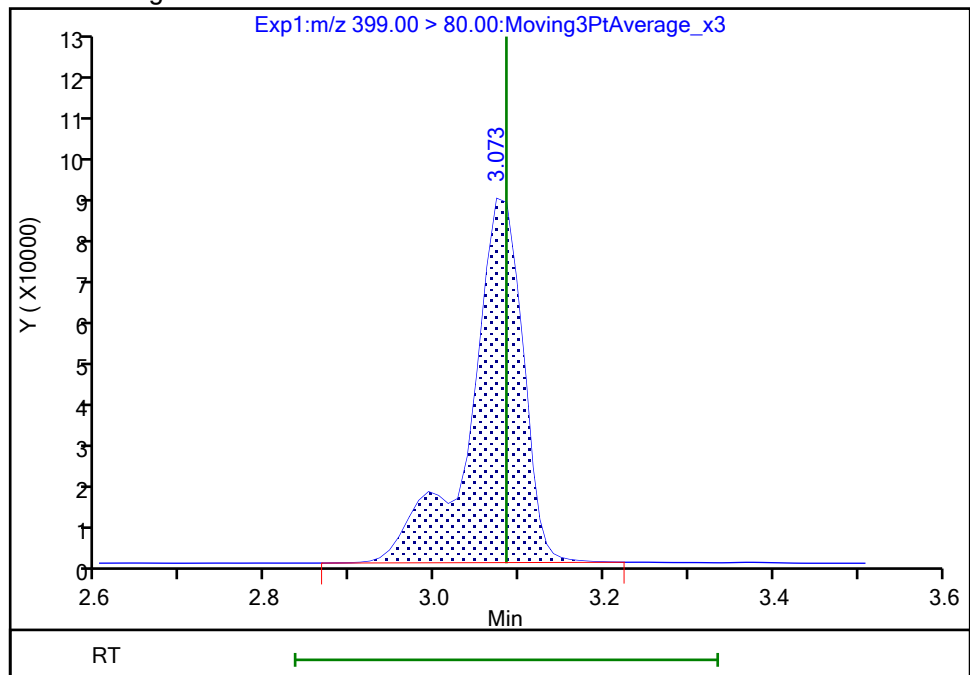
RT: 3.07
Area: 390977
Amount: 0.760648
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 390407
Amount: 0.759539
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 07:51:56

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A08.d

Injection Date: 27-Oct-2020 17:47:02

Instrument ID: LC812

Lims ID: LCS 200-160391/2-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

5

Worklist Smp#: 8

Injection Vol: 20.0 ul

Dil. Factor:

1.0000

Method: PFC_LC812

Limit Group:

LC_PFC_ICAL

Column: C-18 (4.60 mm)

Detector

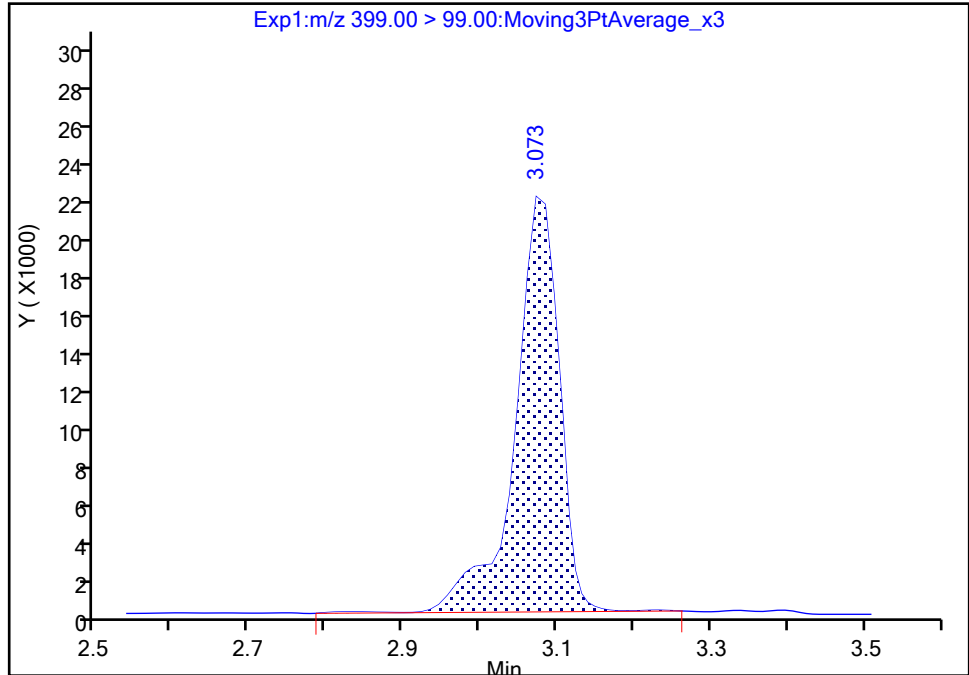
EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

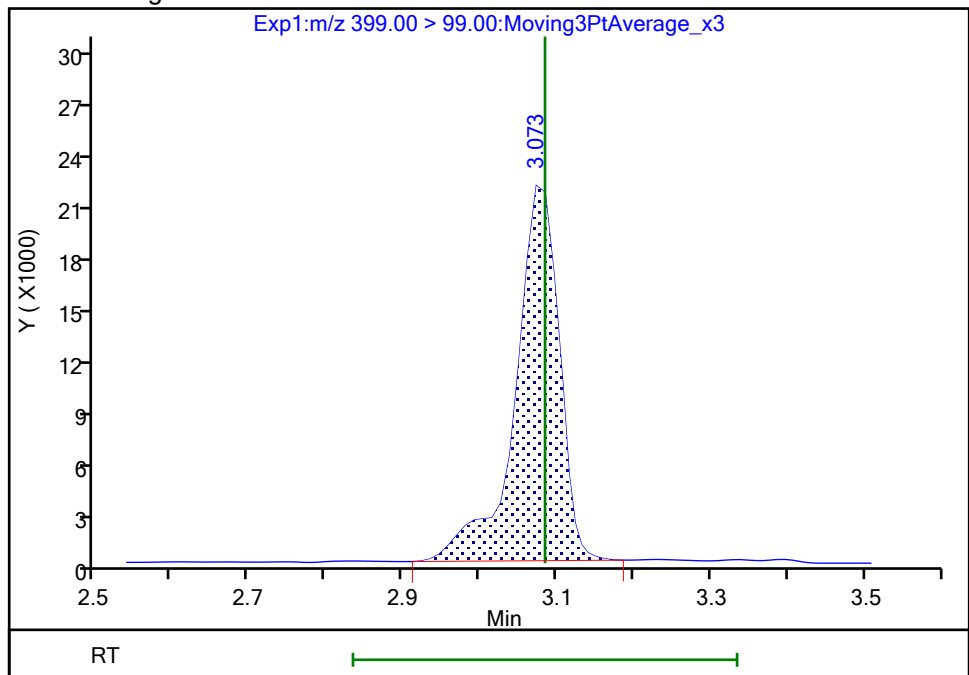
RT: 3.07
Area: 86209
Amount: 0.760648
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 85520
Amount: 0.759539
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 07:52:02

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A08.d

Injection Date: 27-Oct-2020 17:47:02

Instrument ID: LC812

Lims ID: LCS 200-160391/2-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

5

Worklist Smp#: 8

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

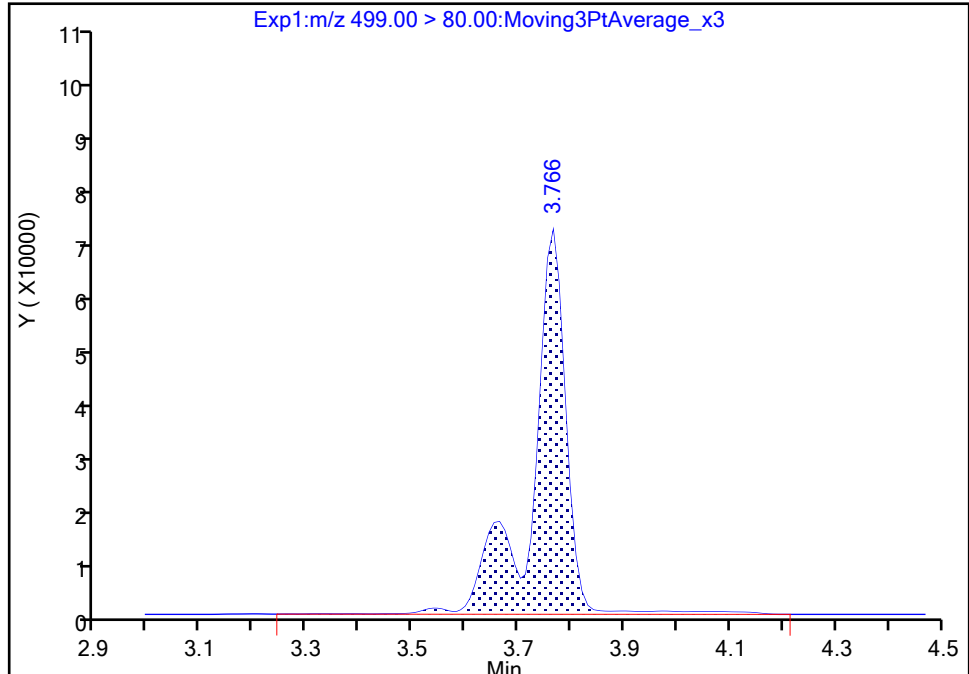
Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

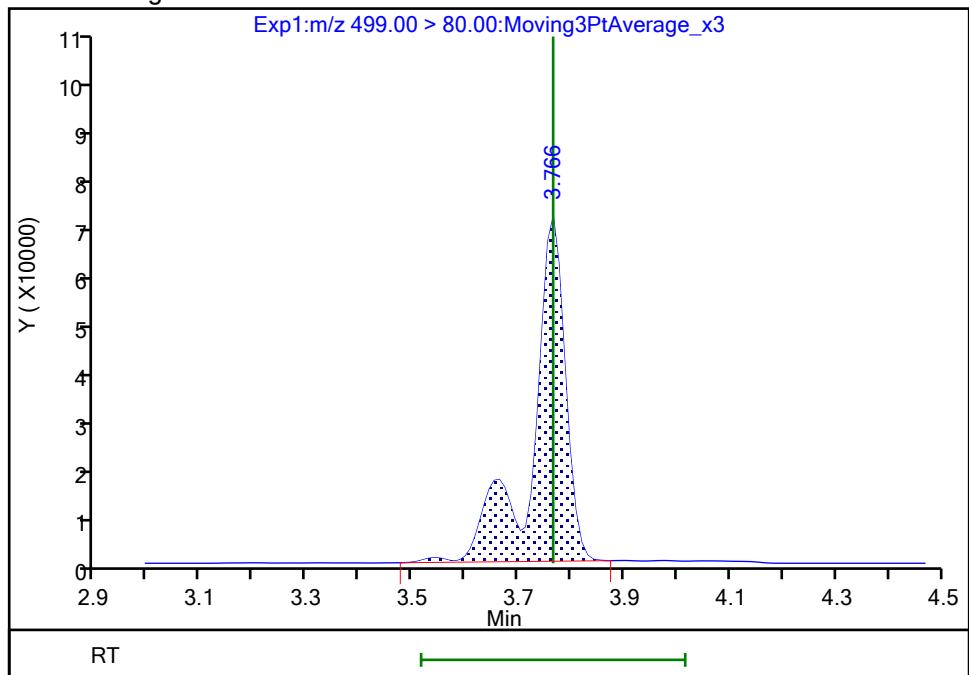
RT: 3.77
Area: 327061
Amount: 0.787943
Amount Units: ng/ml

Processing Integration Results



RT: 3.77
Area: 311609
Amount: 0.750716
Amount Units: ng/ml

Manual Integration Results



Reviewer: deannd, 28-Oct-2020 10:22:05

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

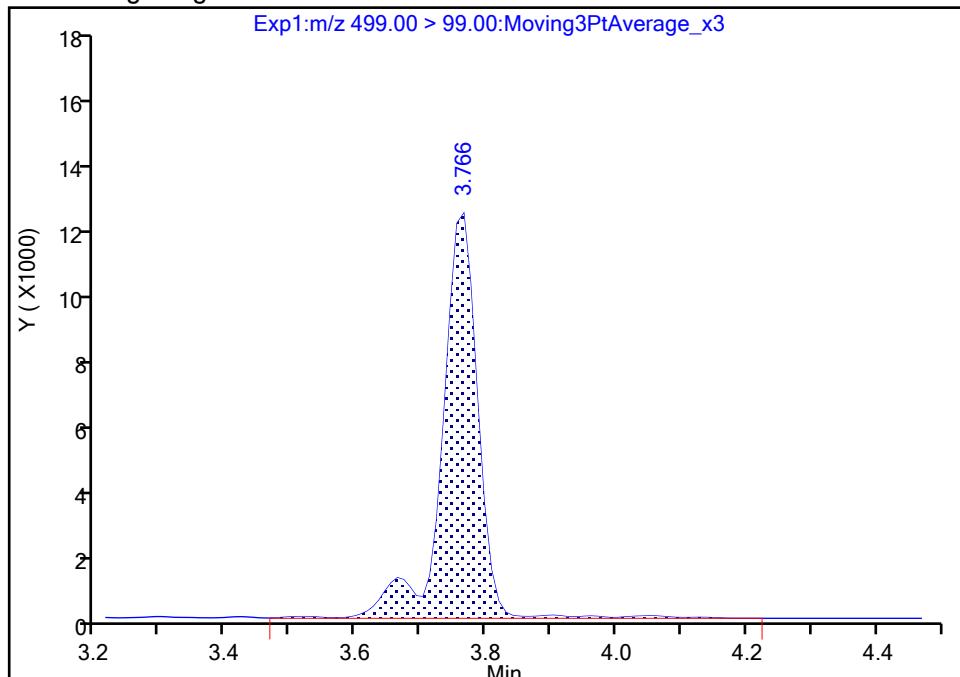
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A08.d
Injection Date: 27-Oct-2020 17:47:02 Instrument ID: LC812
Lims ID: LCS 200-160391/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

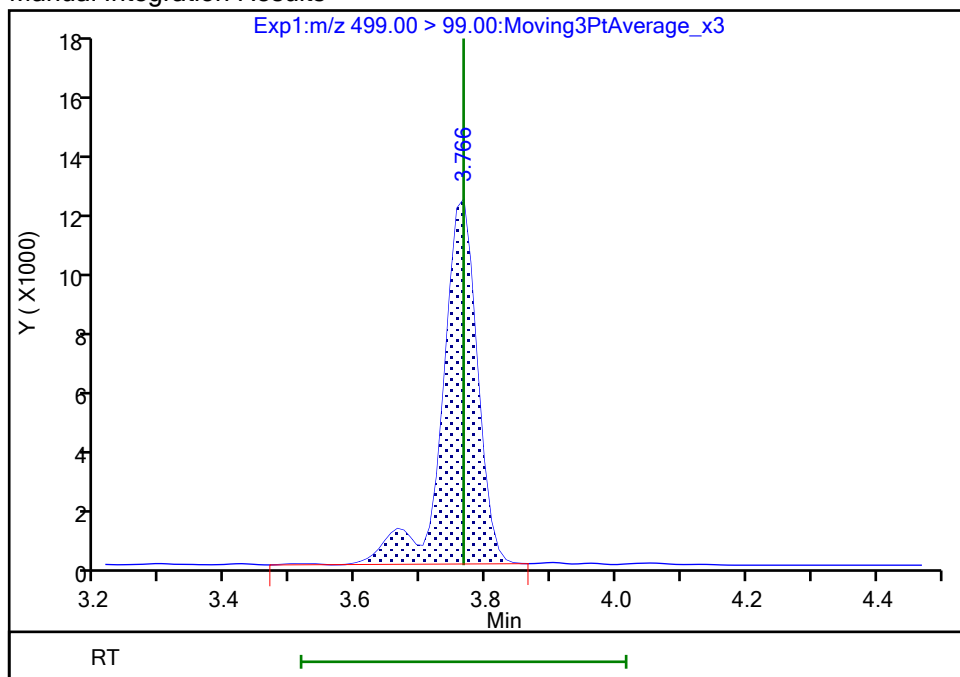
RT: 3.77
Area: 46589
Amount: 0.787943
Amount Units: ng/ml

Processing Integration Results



RT: 3.77
Area: 45072
Amount: 0.750716
Amount Units: ng/ml

Manual Integration Results



Reviewer: deannd, 28-Oct-2020 10:22:09

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A08.d

Injection Date: 27-Oct-2020 17:47:02

Instrument ID: LC812

Lims ID: LCS 200-160391/2-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

5

Worklist Smp#: 8

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

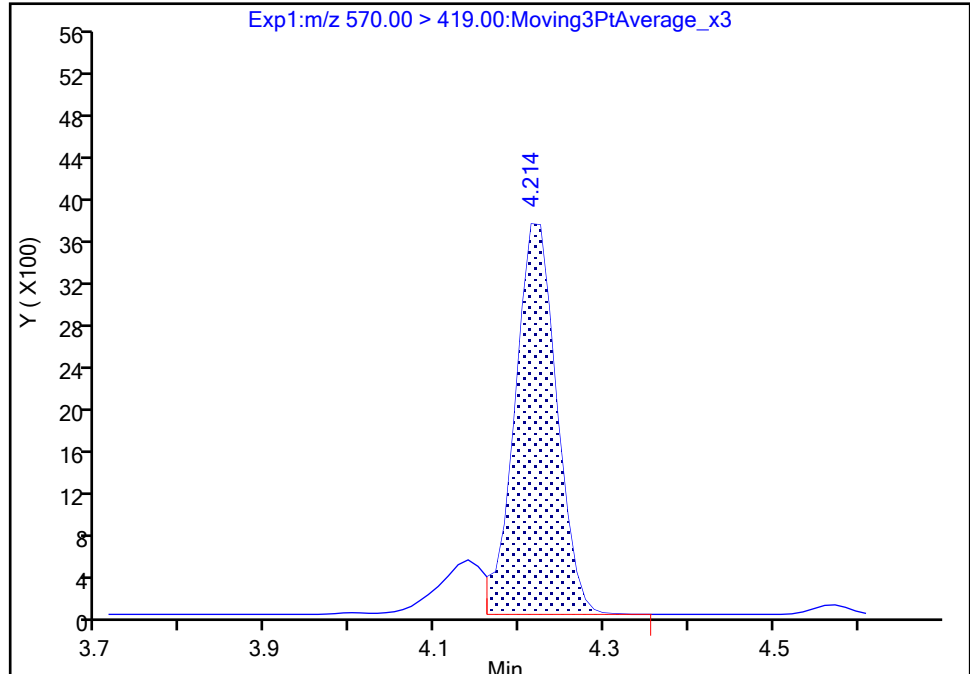
Detector: EXP1

28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

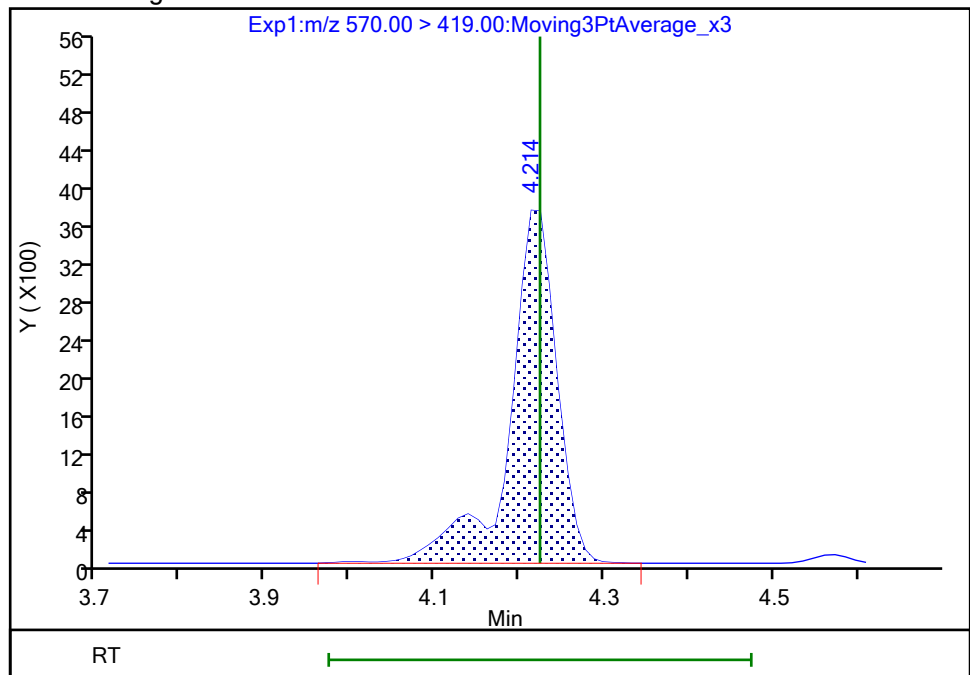
RT: 4.21
Area: 12581
Amount: 0.700351
Amount Units: ng/ml

Processing Integration Results



RT: 4.21
Area: 14480
Amount: 0.806063
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 07:53:00

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A08.d

Injection Date: 27-Oct-2020 17:47:02

Instrument ID: LC812

Lims ID: LCS 200-160391/2-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

5

Worklist Smp#: 8

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

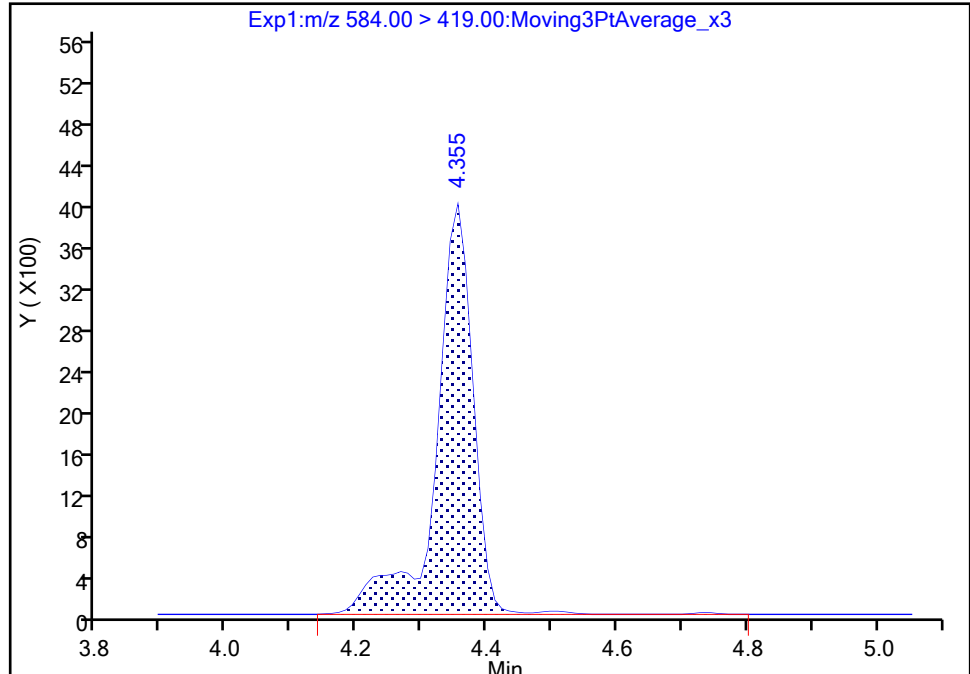
Detector: EXP1

33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

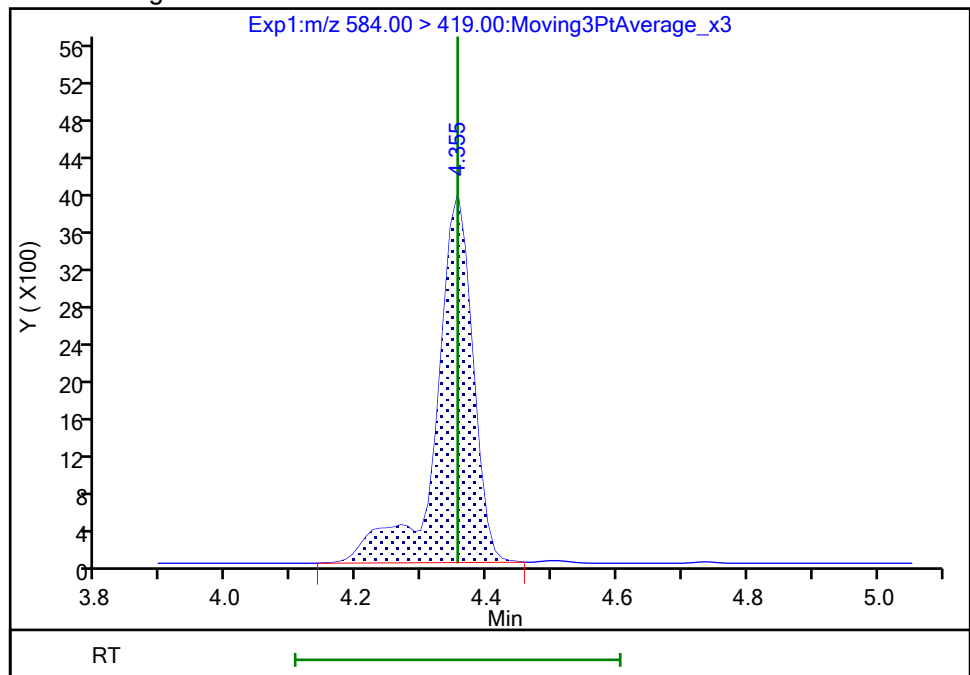
RT: 4.36
Area: 15889
Amount: 0.870409
Amount Units: ng/ml

Processing Integration Results



RT: 4.36
Area: 15655
Amount: 0.857590
Amount Units: ng/ml

Manual Integration Results



Reviewer: deannd, 28-Oct-2020 10:22:32

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

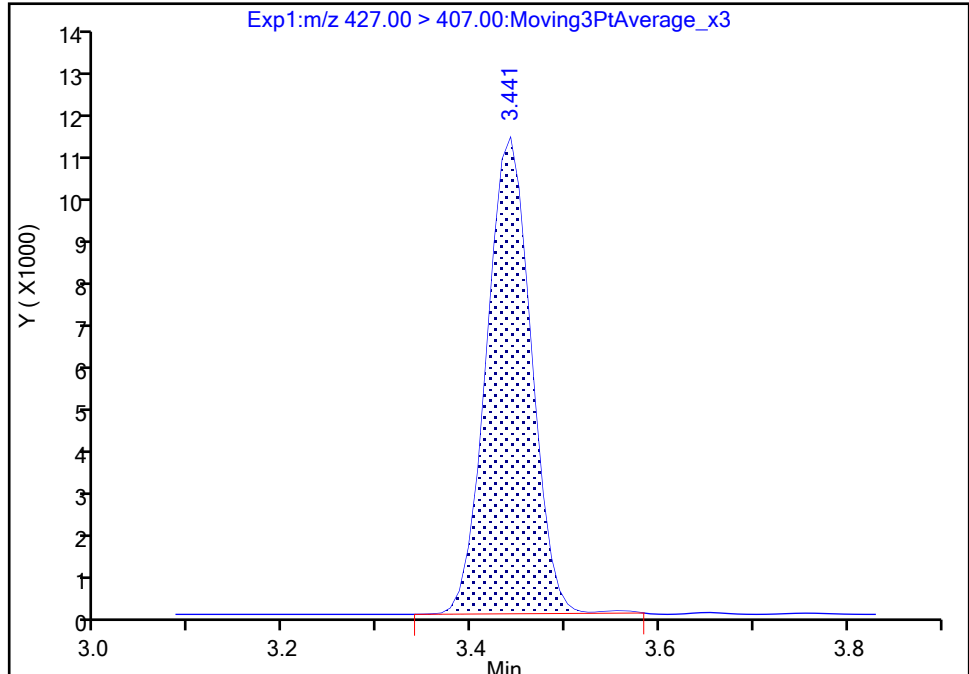
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A08.d
Injection Date: 27-Oct-2020 17:47:02 Instrument ID: LC812
Lims ID: LCS 200-160391/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

13 1H,1H,2H,2H-perfluorooctanesulfo, CAS: 27619-97-2

Signal: 1

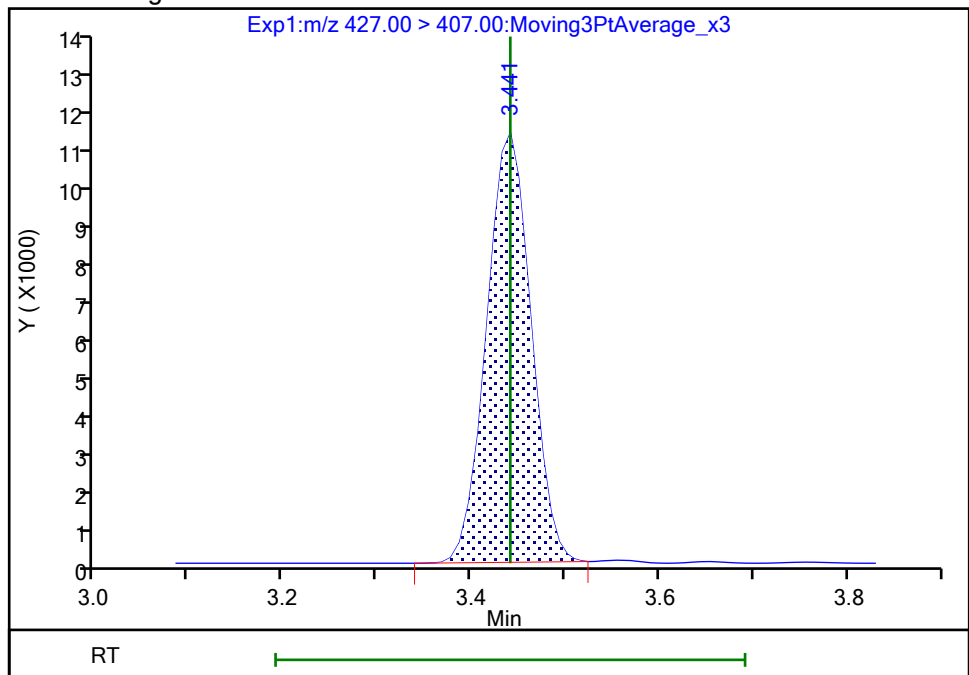
RT: 3.44
Area: 37475
Amount: 0.803952
Amount Units: ng/ml

Processing Integration Results



RT: 3.44
Area: 37243
Amount: 0.798975
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 07:52:13

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A08.d

Injection Date: 27-Oct-2020 17:47:02

Instrument ID: LC812

Lims ID: LCS 200-160391/2-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

5

Worklist Smp#: 8

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

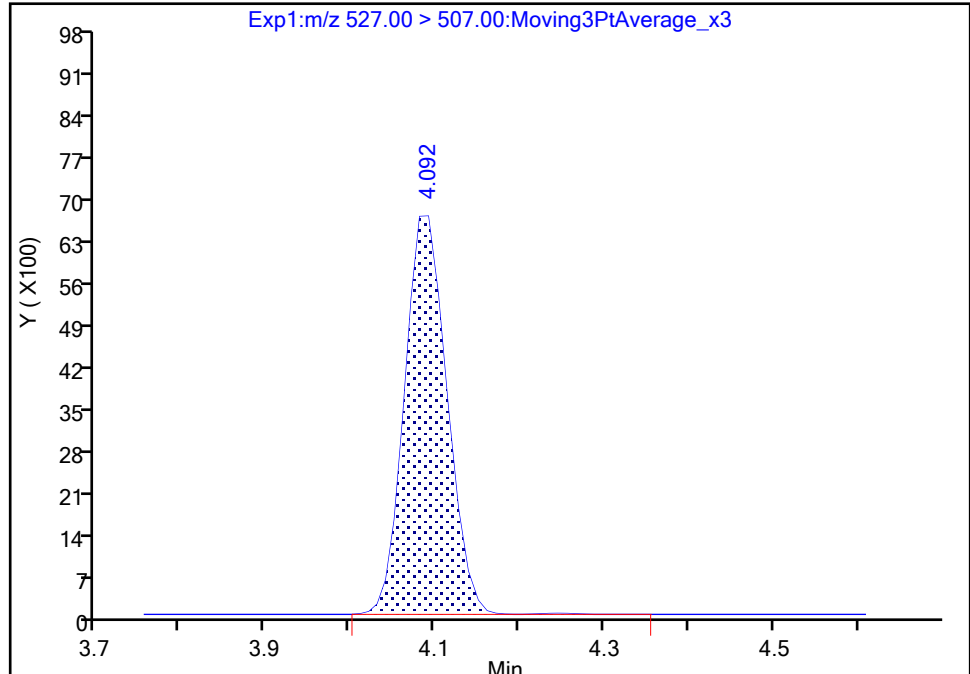
Detector: EXP1

25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

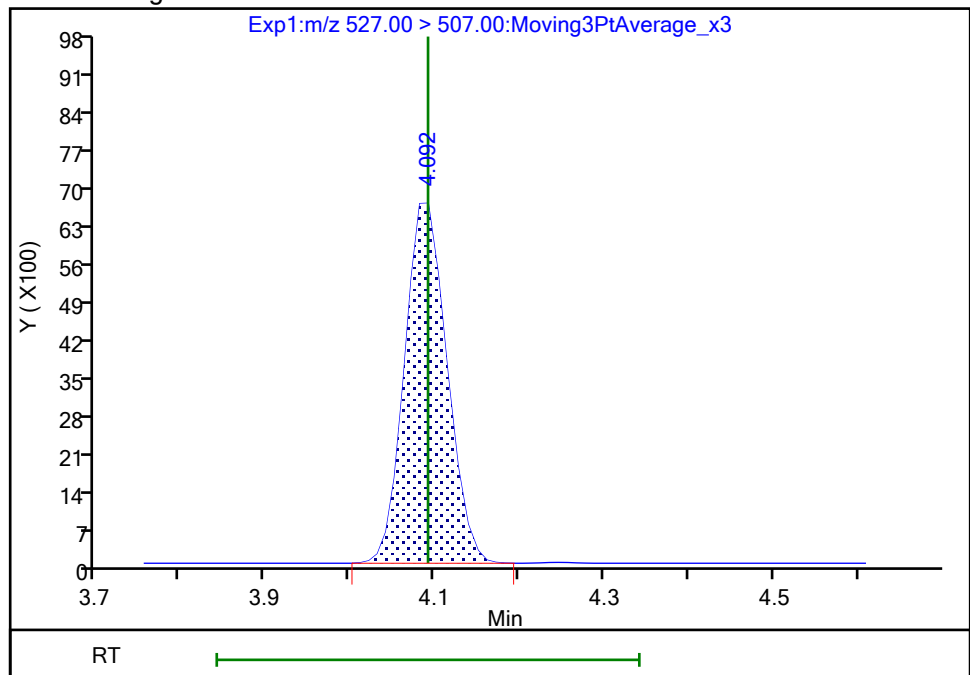
RT: 4.09
Area: 23344
Amount: 0.808471
Amount Units: ng/ml

Processing Integration Results



RT: 4.09
Area: 23303
Amount: 0.807052
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 07:52:52

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A08.d

Injection Date: 27-Oct-2020 17:47:02

Instrument ID: LC812

Lims ID: LCS 200-160391/2-A

Client ID:

Operator ID: lc812tech

ALS Bottle#:

5

Worklist Smp#: 8

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

Method: PFC_LC812

Limit Group: LC_PFC_ICAL

Column: C-18 (4.60 mm)

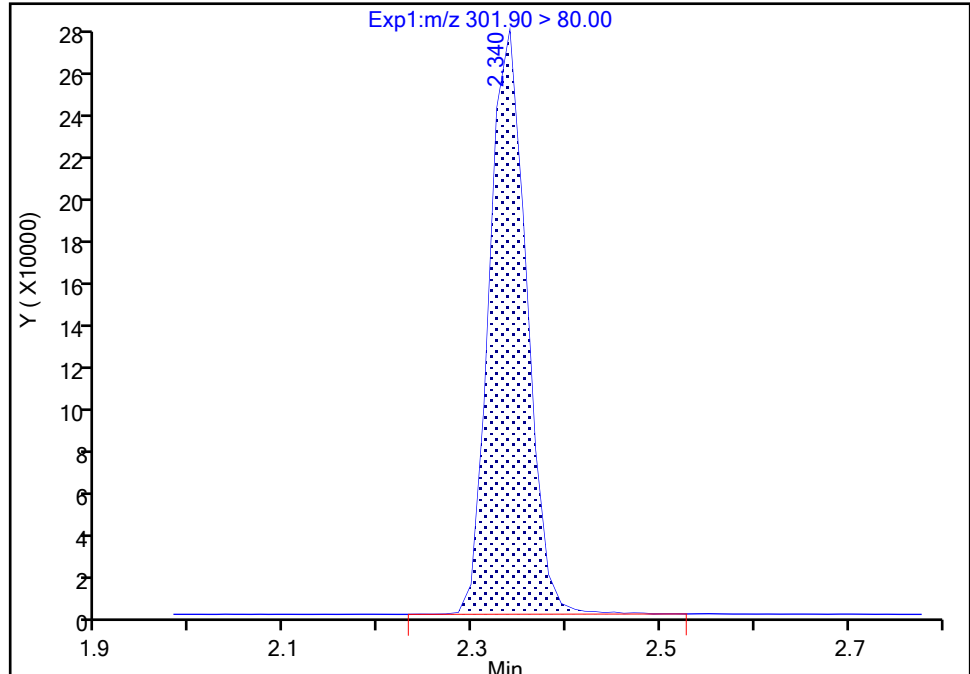
Detector: EXP1

D 47 13C3 PFBS, CAS: STL02337

Signal: 1

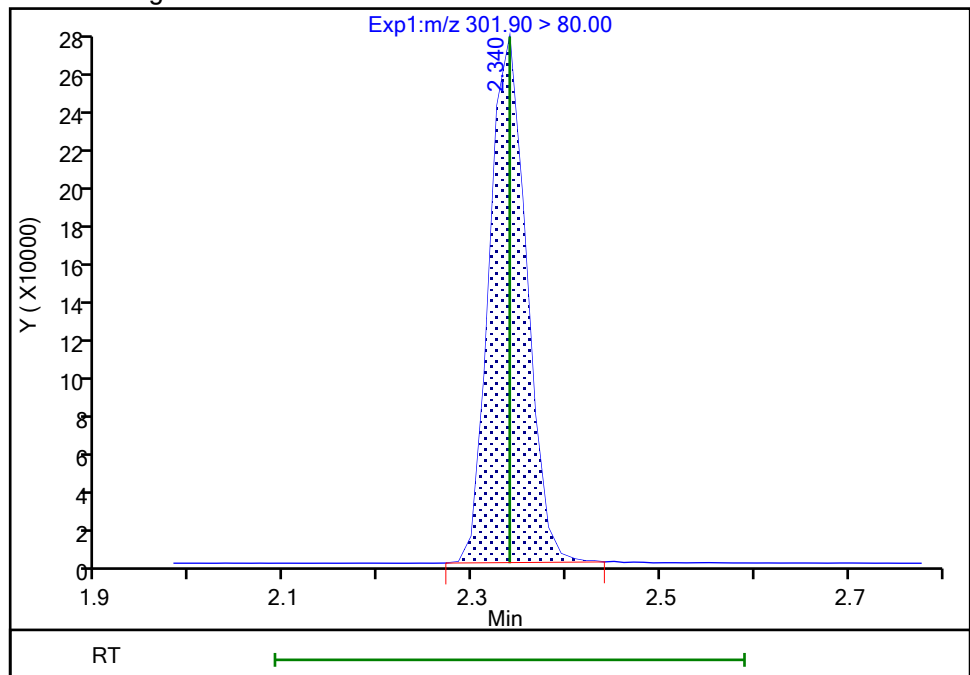
RT: 2.34
Area: 745525
Amount: 1.197505
Amount Units: ng/ml

Processing Integration Results



RT: 2.34
Area: 740892
Amount: 1.190063
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 07:51:17

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins TestAmerica, Burlington</u>	Job No.: <u>480-176996-1</u>
SDG No.: _____	
Client Sample ID: <u>TPW-33R MS</u>	Lab Sample ID: <u>480-176996-2 MS</u>
Matrix: <u>Water</u>	Lab File ID: <u>PA201027A19.d</u>
Analysis Method: <u>537 (modified)</u>	Date Collected: <u>10/21/2020 09:00</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/27/2020 09:15</u>
Sample wt/vol: <u>287.2 (mL)</u>	Date Analyzed: <u>10/27/2020 19:34</u>
Con. Extract Vol.: <u>10 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>20 (uL)</u>	GC Column: <u>C-18</u> ID: <u>4.6 (mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>160481</u>	Units: <u>ng/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	30.3		4.4	0.98
2706-90-3	Perfluoropentanoic acid (PFPeA)	27.5		1.7	0.94
307-24-4	Perfluorohexanoic acid (PFHxA)	31.3		1.7	0.72
375-85-9	Perfluoroheptanoic acid (PFHpA)	31.6		1.7	0.40
335-67-1	Perfluorooctanoic acid (PFOA)	32.3		1.7	0.85
375-95-1	Perfluorononanoic acid (PFNA)	31.3		1.7	0.50
335-76-2	Perfluorodecanoic acid (PFDA)	29.2		1.7	0.40
2058-94-8	Perfluoroundecanoic acid (PFUnA)	28.1		1.7	0.64
307-55-1	Perfluorododecanoic acid (PFDoA)	31.9		1.7	0.40
72629-94-8	Perfluorotridecanoic acid (PFTriA)	31.2		1.7	0.37
376-06-7	Perfluorotetradecanoic acid (PFTeA)	32.6		1.7	0.51
375-73-5	Perfluorobutanesulfonic acid (PFBS)	28.5		1.7	0.55
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	29.7		1.7	0.58
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	29.4		1.7	0.34
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	31.3		1.7	0.76
335-77-3	Perfluorodecanesulfonic acid (PFDS)	30.3		1.7	0.42
754-91-6	Perfluorooctanesulfonamide (PFOSA)	34.1		1.7	0.50
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	30.8		4.4	0.69
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	29.3		4.4	0.81
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	28.1		4.4	0.63
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	29.5		1.7	0.57

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Client Sample ID: TPW-33R MS Lab Sample ID: 480-176996-2 MS
 Matrix: Water Lab File ID: PA201027A19.d
 Analysis Method: 537 (modified) Date Collected: 10/21/2020 09:00
 Extraction Method: 3535 Date Extracted: 10/27/2020 09:15
 Sample wt/vol: 287.2 (mL) Date Analyzed: 10/27/2020 19:34
 Con. Extract Vol.: 10 (mL) Dilution Factor: 1
 Injection Volume: 20 (uL) GC Column: C-18 ID: 4.6 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 160481 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	102		50-150
STL01892	13C4 PFHpA	94		50-150
STL00990	13C4 PFOA	92		50-150
STL00991	13C4 PFOS	102		50-150
STL00995	13C5 PFNA	93		50-150
STL00992	13C4 PFBA	88		25-150
STL00993	13C2 PFHxA	121		50-150
STL00996	13C2 PFDA	87		50-150
STL00997	13C2 PFUnA	90		50-150
STL00998	13C2 PFDoA	75		50-150
STL01056	13C8 FOSA	85		25-150
STL01893	13C5 PFPeA	103		25-150
STL02116	13C2 PFTeDA	73		50-150
STL02118	d3-NMeFOSAA	78		50-150
STL02117	d5-NEtFOSAA	85		50-150
STL02279	M2-6:2 FTS	101		25-150
STL02280	M2-8:2 FTS	89		25-150
STL02337	13C3 PFBS	101		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A19.d
 Lims ID: 480-176996-C-2-B MS
 Client ID: TPW-33R
 Sample Type: MS
 Inject. Date: 27-Oct-2020 19:34:04 ALS Bottle#: 16 Worklist Smp#: 19
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: 480-176996-C-2-B MS
 Misc. Info.: 200-0043412-019 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Method: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 28-Oct-2020 13:19:14 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1652

First Level Reviewer: khanphomeea

Date: 28-Oct-2020 09:21:59

Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	2.046	1.981	0.065	0.636	844509	1.10		88.3	15048	
2 Perfluorobutanoic acid										M
212.90 > 169.00	2.046	1.990	0.056	1.000	549935	0.8708		87.1	159	M
D 3 13C5 PFPeA										
267.90 > 223.00	2.312	2.326	-0.014	0.719	705457	1.29		103	1848	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.312	2.326	-0.014	1.000	471148	0.7905		79.0	14.7	
D 47 13C3 PFBS										M
301.90 > 80.00	2.326	2.339	-0.013	0.724	783990	1.17		101	41584	M
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.326	2.353	-0.027	1.000	550678	0.8195	Target=2.07	92.7	175	
298.90 > 99.00	2.326	2.353	-0.027	1.000	279433		1.97(1.04-3.11)		70.0	
D 60 M2-4:2 FTS										M
329.00 > 81.00	2.552	2.665	-0.113	0.794	89195	1.78		152	21.2	M
61 1H,1H,2H,2H-perfluorohexanesulfo										
327.00 > 307.00	2.552	2.665	-0.113	1.000	80825	0.6546		70.1	1527	
D 7 13C2 PFHxA										
315.00 > 270.00	2.577	2.703	-0.126	0.802	851314	1.51		121	9614	
6 Perfluorohexanoic acid										M
313.00 > 269.00	2.577	2.703	-0.126	1.000	617165	0.8999	Target=12.44	90.0	95.5	M
313.00 > 119.00	2.577	2.703	-0.126	1.000	56212		10.98(6.22-18.66)		138	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.577	2.703	-0.126	0.922	623595	1.08	Target=3.64	115	294	
349.00 > 99.00	2.577	2.703	-0.126	0.922	165878		3.76(1.82-5.46)		103	
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.628	2.810	-0.182	0.818	107195	2.04		163	1030	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
67 Perfluoro(2-propoxypropanoic) ac										M
329.10 > 285.00	2.628	2.818	-0.190	1.000	113749	0.6234		62.3	39.7	M
D 11 18O2 PFHxS										a
403.00 > 84.00	2.794	3.084	-0.290	0.000	578129	1.21		102	3075	a
8 Perfluorohexanesulfonic acid										Ma
399.00 > 80.00	2.794	3.084	-0.290	1.000	460230	0.8524	Target=4.60	93.7	435	a
399.00 > 99.00	2.794	3.084	-0.290	1.000	105905		4.35(2.30-6.91)		145	M
D 9 13C4 PFHpA										a
367.00 > 322.00	2.810	3.084	-0.274	0.000	603760	1.18		94.0	3440	a
10 Perfluoroheptanoic acid										M
363.00 > 319.00	2.810	3.084	-0.274	1.000	439330	0.9077	Target=3.34	90.8	85.9	M
363.00 > 169.00	2.810	3.084	-0.274	1.000	134171		3.27(1.67-5.01)		487	M
77 DONA										a
377.00 > 251.00	2.835	3.124	-0.290	0.793	871066	0.7107	Target=2.44	75.4	1401	a
377.00 > 85.00	2.835	3.124	-0.290	0.793	370446		2.35(1.22-3.67)		635	
16 Perfluoroheptanesulfonic acid										a
449.00 > 80.00	3.186	3.441	-0.255	0.891	389130	0.8443	Target=7.08	88.7	852	a
449.00 > 99.00	3.186	3.441	-0.255	0.891	57874		6.72(3.54-10.63)		265	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.205	3.441	-0.236	0.997	76964	1.20		101	222	
13 1H,1H,2H,2H-perfluorooctanesulfo										
427.00 > 407.00	3.205	3.441	-0.236	1.000	41670	0.8056		85.0	591	
D 14 13C4 PFOA										
417.00 > 372.00	3.214	3.450	-0.236	1.000	607452	1.16		92.5	2156	
* 62 13C2 PFOA										
415.00 > 370.00	3.214	3.450	-0.236		667384	1.25			2091	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.214	3.458	-0.244	1.000	464813	0.9264	Target=2.29	92.6	183	
413.00 > 169.00	3.214	3.458	-0.244	1.000	215865		2.15(1.14-3.43)		492	
D 18 13C4 PFOS										
503.00 > 80.00	3.576	3.765	-0.189	1.113	475370	1.21		102	1292	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.583	3.765	-0.182	1.002	389163	0.9002	Target=7.10	97.0	244	M
499.00 > 99.00	3.576	3.765	-0.189	1.000	56171		6.93(3.55-10.64)		377	M
D 19 13C5 PFNA										
468.00 > 423.00	3.608	3.786	-0.178	1.123	514316	1.16		92.9	2652	
20 Perfluorononanoic acid										
463.00 > 419.00	3.608	3.786	-0.178	1.000	376188	0.8978	Target=5.83	89.8	125	
463.00 > 169.00	3.599	3.786	-0.187	0.998	64848		5.80(2.91-8.74)		963	
69 9-Chlorohexadecafluoro-3-oxanona										
531.00 > 351.00	3.776	3.922	-0.146	1.056	277434	0.7292		78.2	1587	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	3.922	4.052	-0.130	1.097	277597	0.8126	Target=3.38	84.6	1052	
549.00 > 99.00	3.922	4.052	-0.130	1.097	78223		3.55(1.69-5.08)		440	
D 23 13C2 PFDA										
515.00 > 470.00	3.951	4.082	-0.131	1.229	460392	1.08		86.7	3423	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
24 Perfluorodecanoic acid										
513.00 > 469.00	3.951	4.082	-0.131	1.000	305905	0.8395	Target=6.81	83.9	495	
513.00 > 169.00	3.951	4.082	-0.131	1.000	46680		6.55(3.41-10.22)		410	
D 26 M2-8:2 FTS										
529.00 > 81.00	3.961	4.092	-0.131	1.232	80433	1.07		89.1	188	
25 1H,1H,2H,2H-perfluorodecanesulfo										
527.00 > 507.00	3.961	4.092	-0.131	1.000	22527	0.8473		88.4	464	M
D 21 13C8 FOSA										
506.00 > 78.00	4.052	4.139	-0.087	1.261	728840	1.06		85.2	2145	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.052	4.139	-0.087	1.000	533166	0.9781		97.8	1244	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.115	4.214	-0.099	1.280	23660	0.9784		78.3	435	
28 N-methylperfluorooctanesulfonami										
570.00 > 419.00	4.127	4.224	-0.097	1.003	15787	0.8838		88.4	210	M
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.224	4.309	-0.085	1.181	248643	0.8699	Target=3.31	90.2	1014	
599.00 > 99.00	4.224	4.309	-0.085	1.181	72244		3.44(1.66-4.97)		668	
D 30 13C2 PFUnA										
565.00 > 520.00	4.257	4.343	-0.086	1.324	361691	1.13		90.2	4150	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.257	4.343	-0.086	1.000	230293	0.8069	Target=6.57	80.7	372	
563.00 > 169.00	4.257	4.343	-0.086	1.000	44725		5.15(3.28-9.85)		941	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.267	4.343	-0.076	1.328	27683	1.06		85.2	517	
33 N-ethylperfluorooctanesulfonamid										
584.00 > 419.00	4.277	4.355	-0.078	1.002	17071	0.8420		84.2	370	M
66 11-Chloroeicosafuoro-3-oxaundec										
631.00 > 451.00	4.366	4.422	-0.056	1.221	235284	0.7170		76.1	6963	
D 36 13C2 PFDaA										
615.00 > 570.00	4.509	4.561	-0.052	1.403	317008	0.9354		74.8	2927	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.509	4.561	-0.052	1.000	226355	0.9153	Target=5.16	91.5	424	
613.00 > 169.00	4.509	4.561	-0.052	1.000	50402		4.49(2.58-7.75)		1038	
74 1H,1H,2H,2H-perfluorododecanesul										
627.00 > 607.00	4.535	4.585	-0.050	1.145	13679	0.9260		96.1	415	
75 Perfluorododecanesulfonic acid (										
699.00 > 80.00	4.700	4.736	-0.036	1.314	63524	0.6926	Target=0.45	71.5	401	
699.00 > 99.00	4.700	4.736	-0.036	1.314	143635		0.44(0.22-0.67)		1124	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.735	4.772	-0.037	1.050	187971	0.8949	Target=3.30	89.5	727	
663.00 > 169.00	4.735	4.772	-0.037	1.050	57244		3.28(1.65-4.95)		1256	
D 43 13C2 PFTeDA										
715.00 > 670.00	4.939	4.969	-0.030	1.537	220104	0.9118		72.9	3850	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.939	4.969	-0.030	1.000	37817	0.9377	Target=1.06	93.8	972	
713.00 > 219.00	4.939	4.969	-0.030	1.000	36039		1.05(0.53-1.59)		1024	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 44 13C2 PFHxDA										
815.00 > 770.00	5.307	5.329	-0.022	1.651	226365	0.8274		66.2	4384	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.318	5.329	-0.011	1.002	134129	0.8290	Target=3.06	82.9	171	
813.00 > 169.00	5.307	5.329	-0.022	1.000	46065		2.91(1.53-4.58)		1260	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.667	5.694	-0.027	1.068	129303	0.9554	Target=2.82	95.5	404	
913.00 > 169.00	5.667	5.694	-0.027	1.068	47831		2.70(1.41-4.24)		1064	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A19.d

Injection Date: 27-Oct-2020 19:34:04

Instrument ID: LC812

Lims ID: 480-176996-C-2-B MS

Client ID: TPW-33R

Operator ID: lc812tech

ALS Bottle#: 16

Worklist Smp#: 19

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

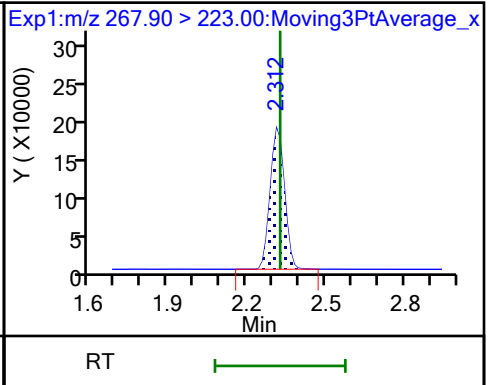
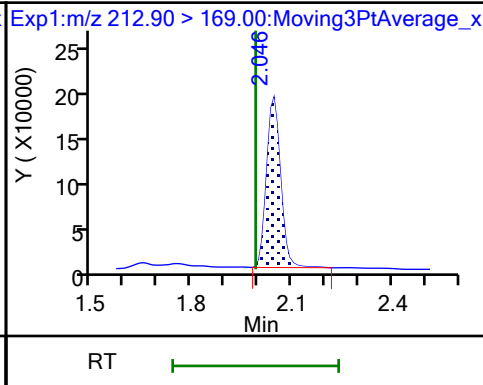
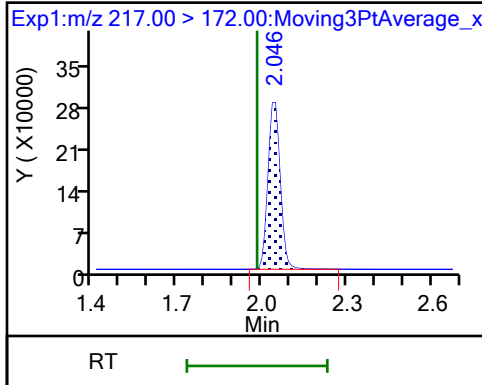
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid (M)

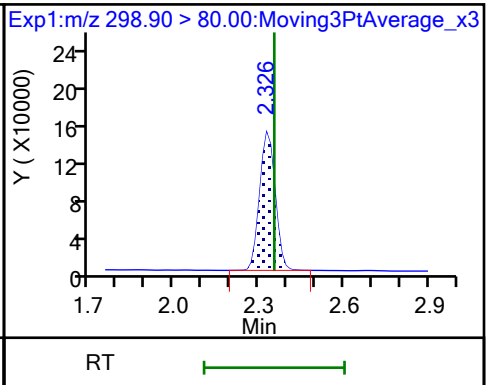
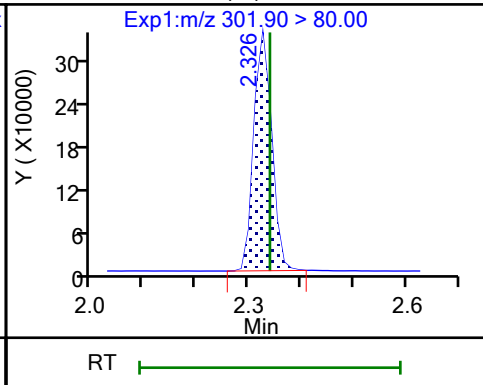
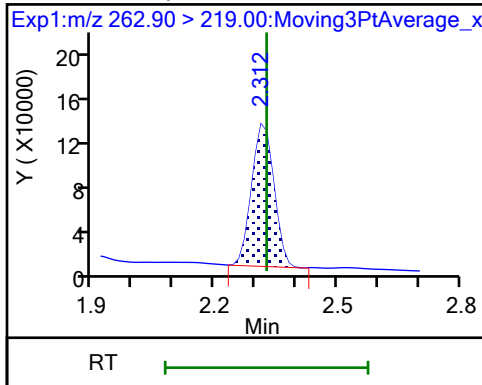
D 3 13C5 PFPeA



4 Perfluoropentanoic acid

D 47 13C3 PFBS (M)

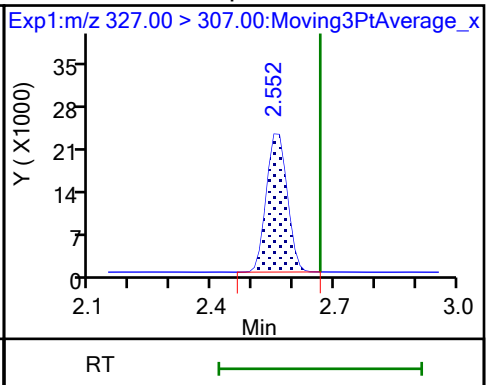
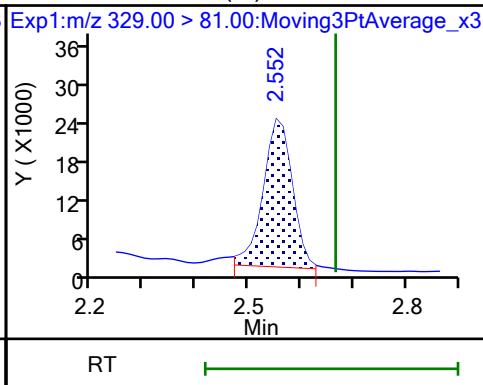
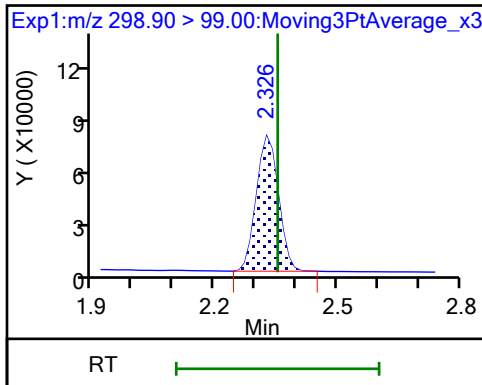
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

D 60 M2-4:2 FTS (M)

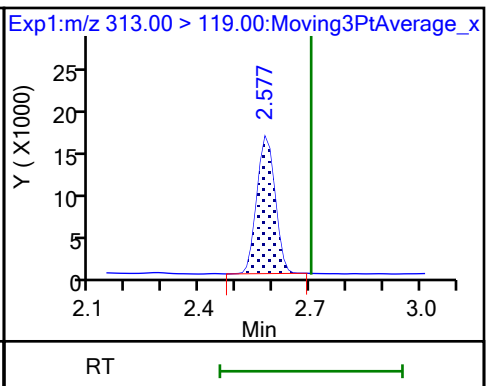
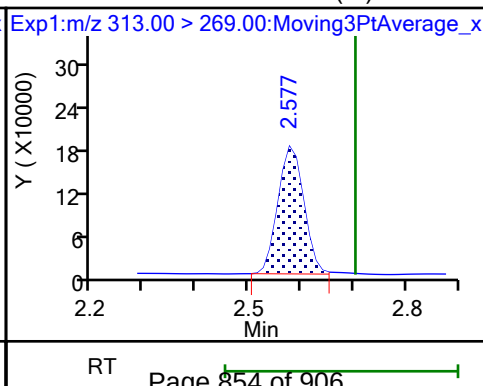
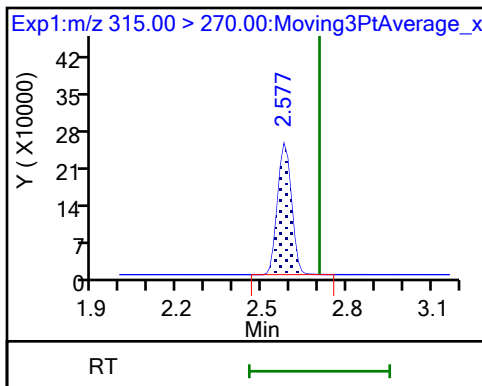
61 1H,1H,2H,2H-perfluorohexanesulfo

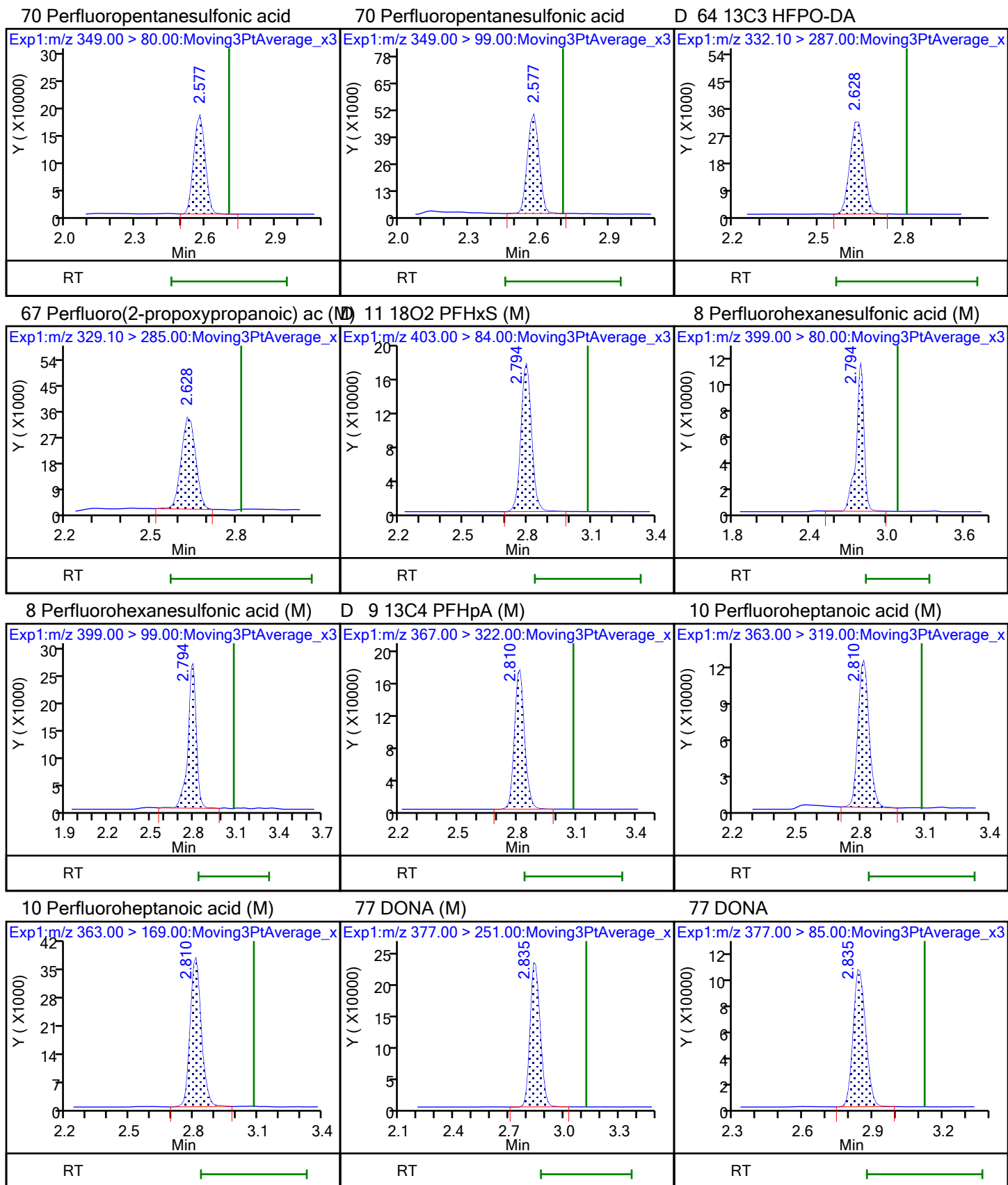


D 7 13C2 PFHxA

6 Perfluorohexanoic acid (M)

6 Perfluorohexanoic acid

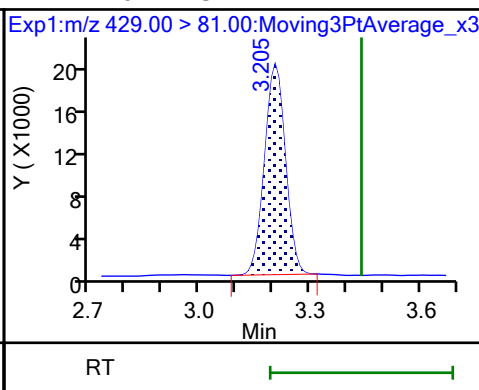
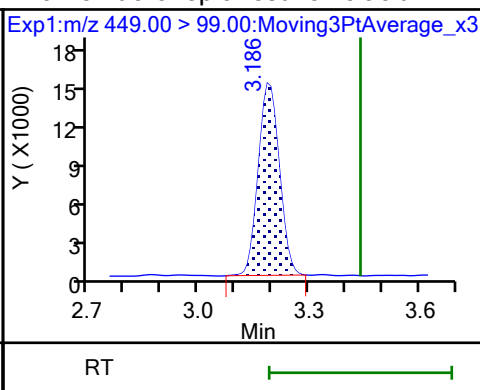
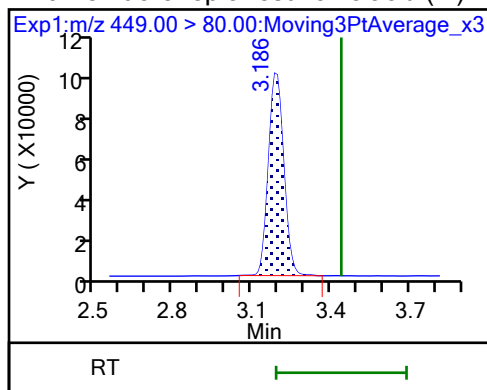




16 Perfluoroheptanesulfonic acid (M)

16 Perfluoroheptanesulfonic acid

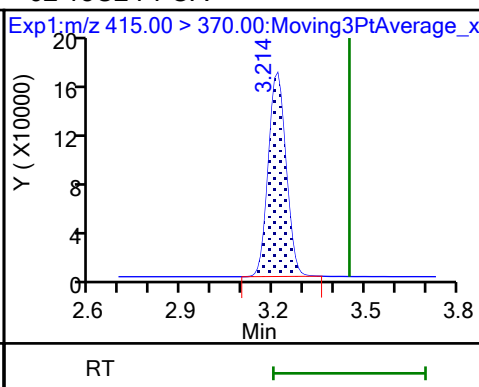
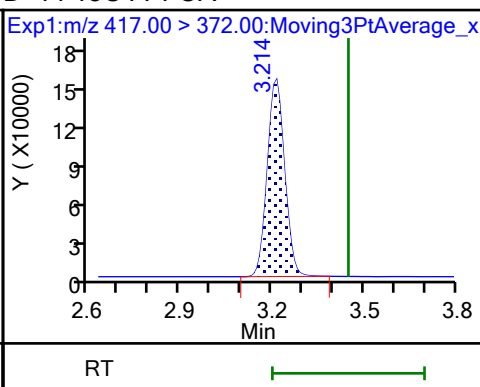
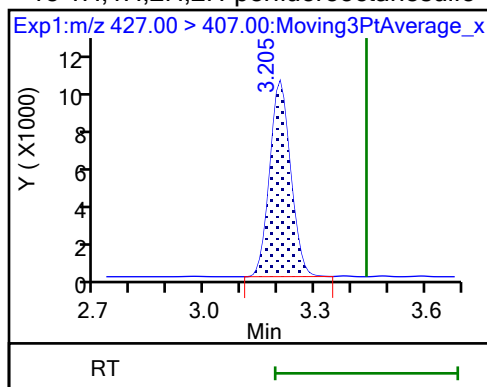
D 12 M2-6:2 FTS



13 1H,1H,2H,2H-perfluorooctanesulfo

D 14 13C4 PFOA

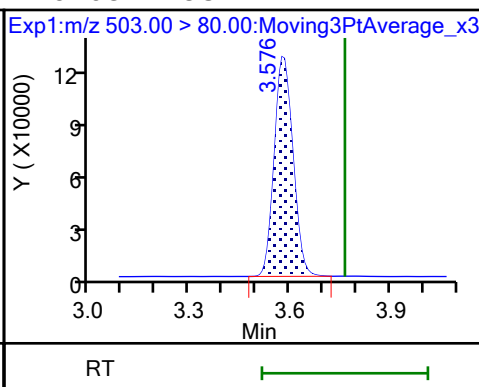
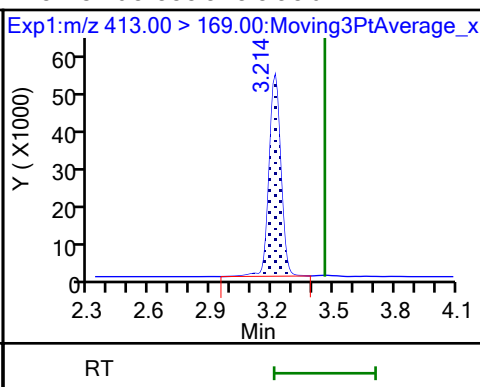
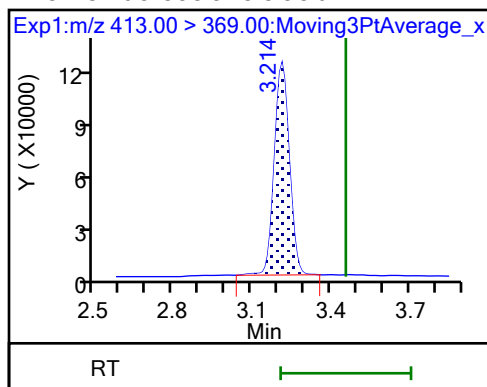
* 62 13C2 PFOA



15 Perfluorooctanoic acid

15 Perfluorooctanoic acid

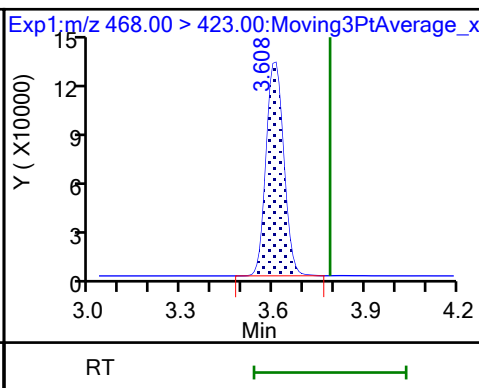
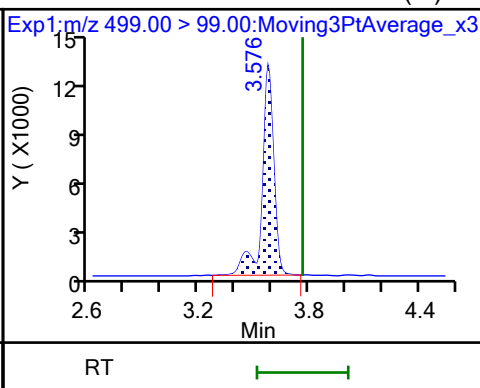
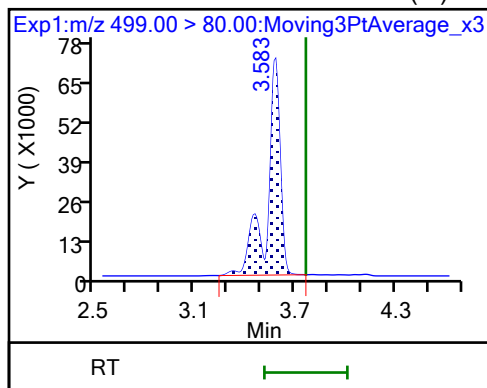
D 18 13C4 PFOS

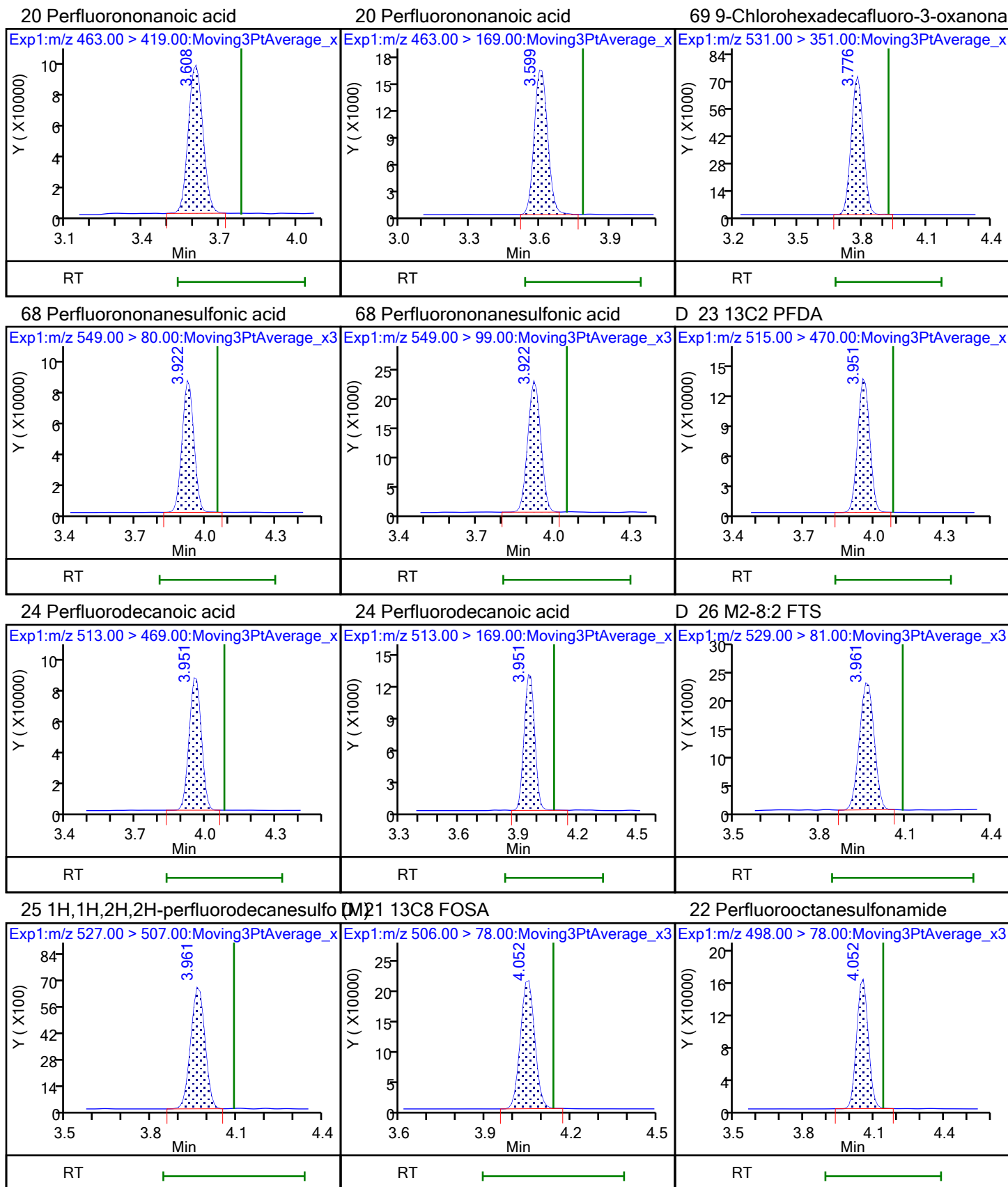


17 Perfluorooctanesulfonic acid (M)

17 Perfluorooctanesulfonic acid (M)

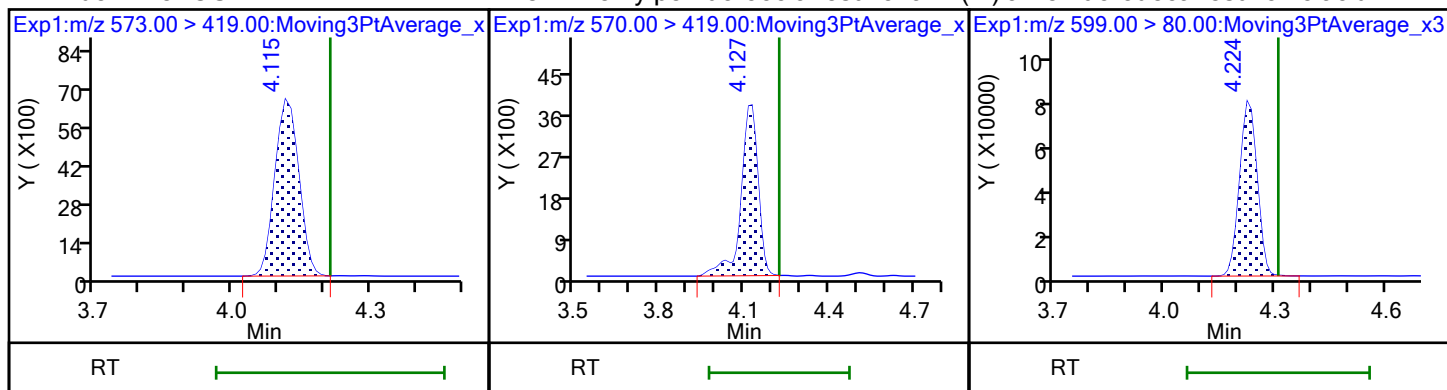
D 19 13C5 PFNA





D 27 d3-NMeFOSAA

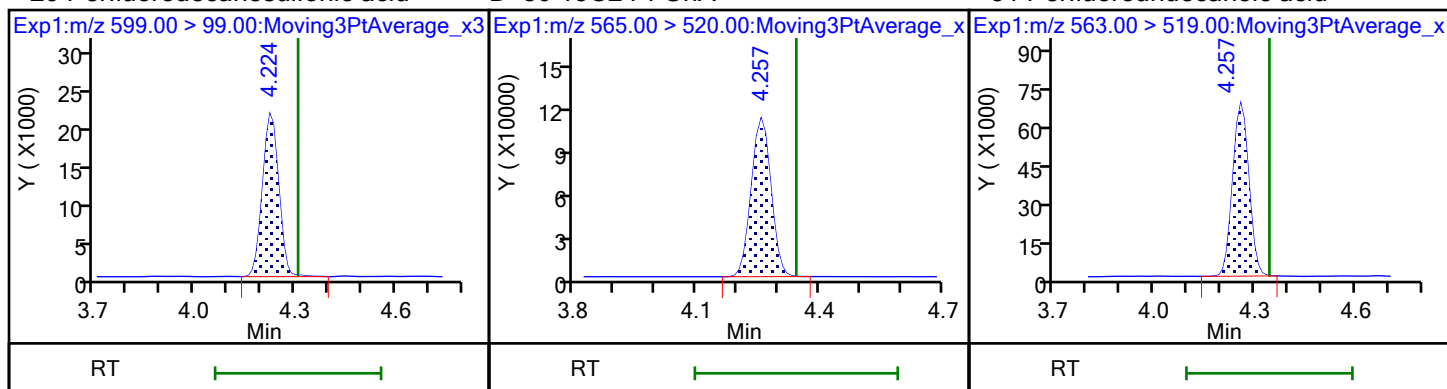
28 N-methylperfluorooctanesulfonami (M29 Perfluorodecanesulfonic acid



29 Perfluorodecanesulfonic acid

D 30 13C2 PFUnA

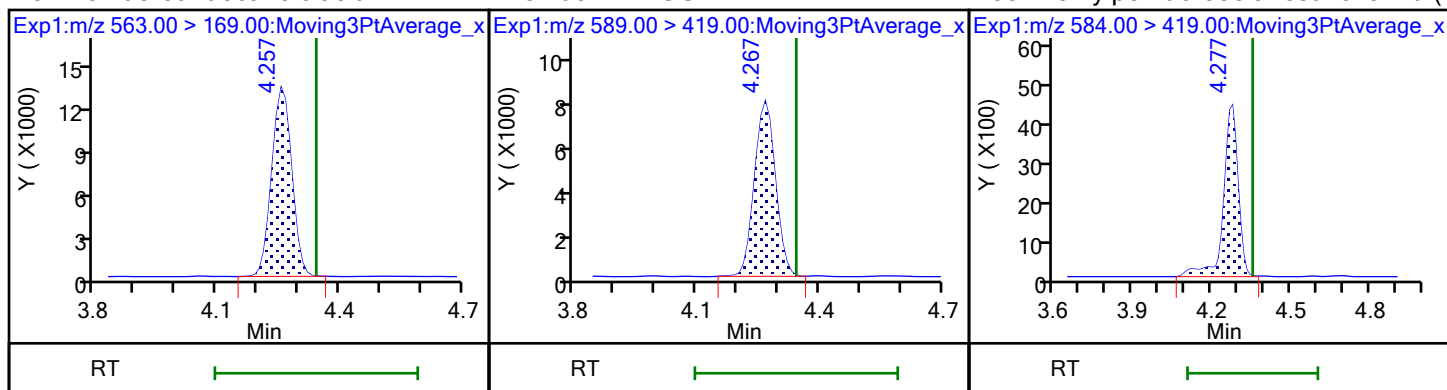
31 Perfluoroundecanoic acid



31 Perfluoroundecanoic acid

D 32 d5-NEtFOSAA

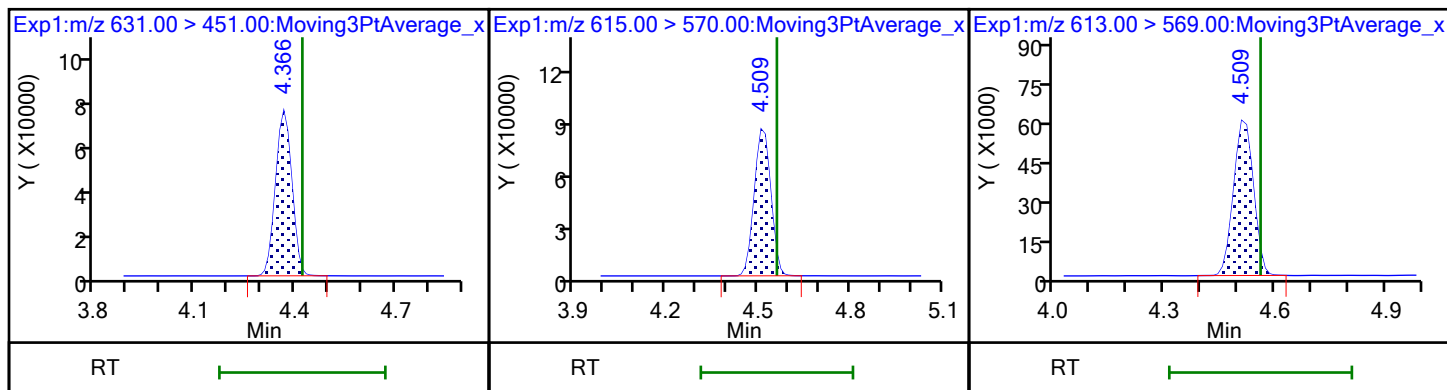
33 N-ethylperfluorooctanesulfonamid (M



66 11-Chloroeicosafluoro-3-oxaundec

D 36 13C2 PFDaA

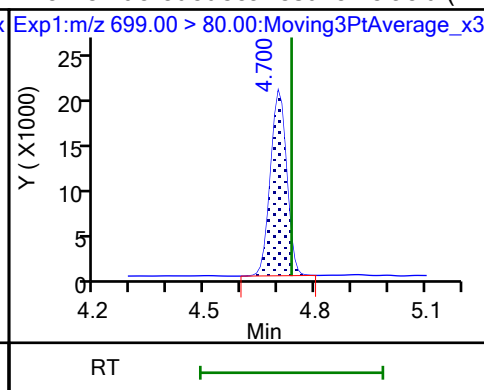
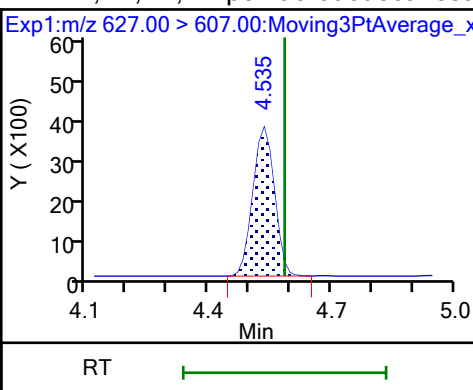
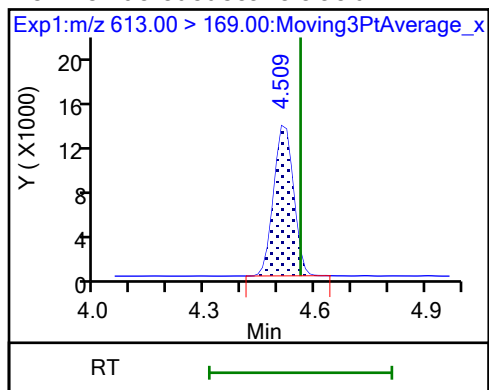
37 Perfluorododecanoic acid



37 Perfluorododecanoic acid

74 1H,1H,2H,2H-perfluorododecanesul

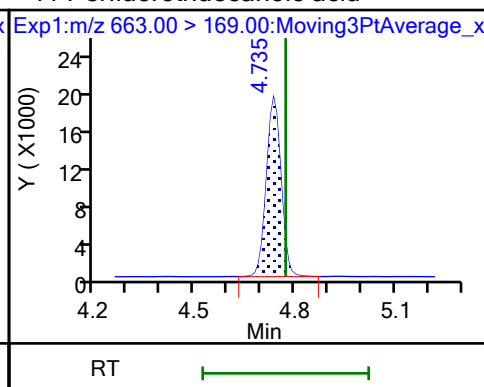
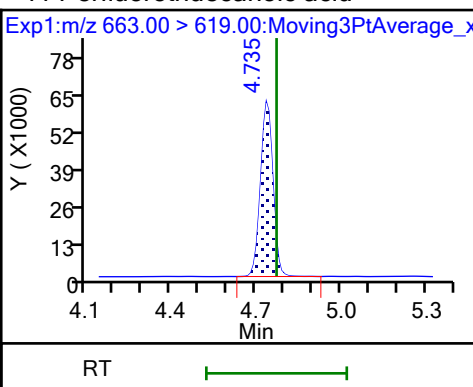
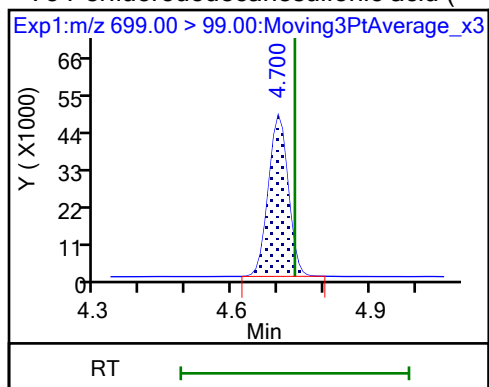
75 Perfluorododecanesulfonic acid (



75 Perfluorododecanesulfonic acid (

41 Perfluorotridecanoic acid

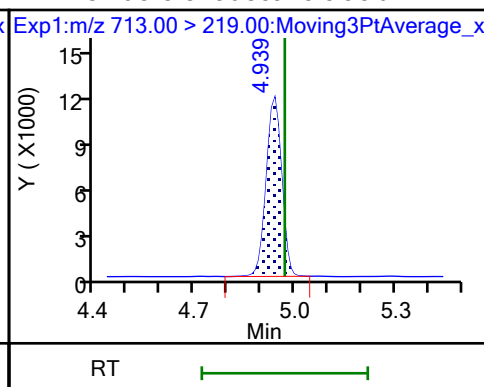
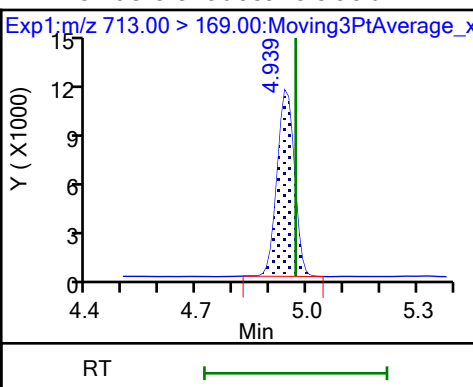
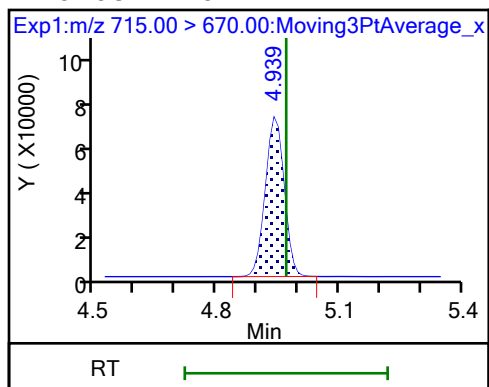
41 Perfluorotridecanoic acid



D 43 13C2 PFTeDA

42 Perfluorotetradecanoic acid

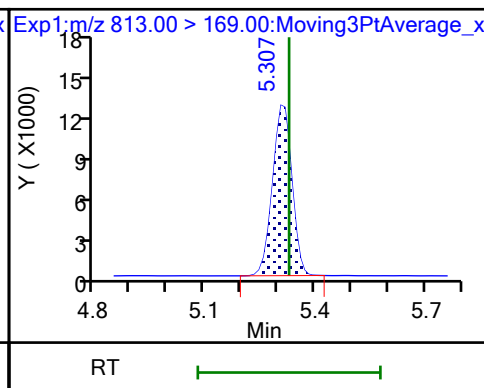
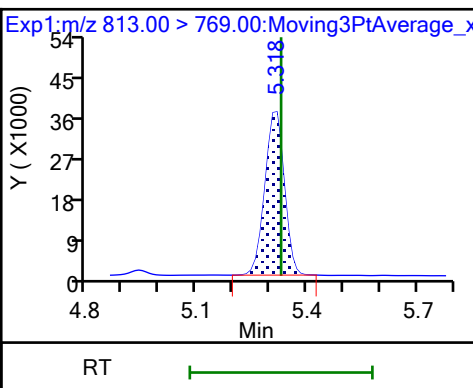
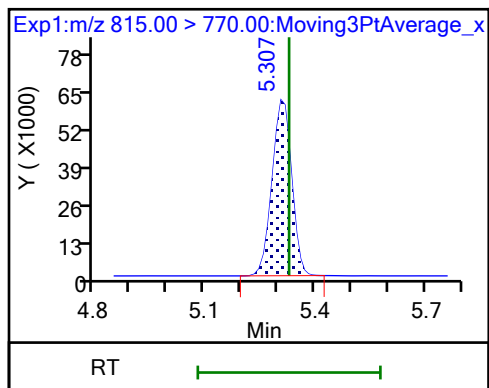
42 Perfluorotetradecanoic acid



D 44 13C2 PFHxDA

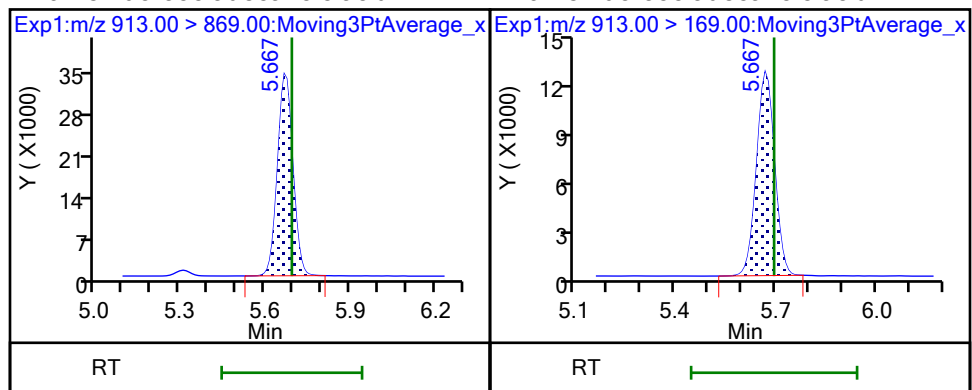
45 Perfluorohexadecanoic acid

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid

46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

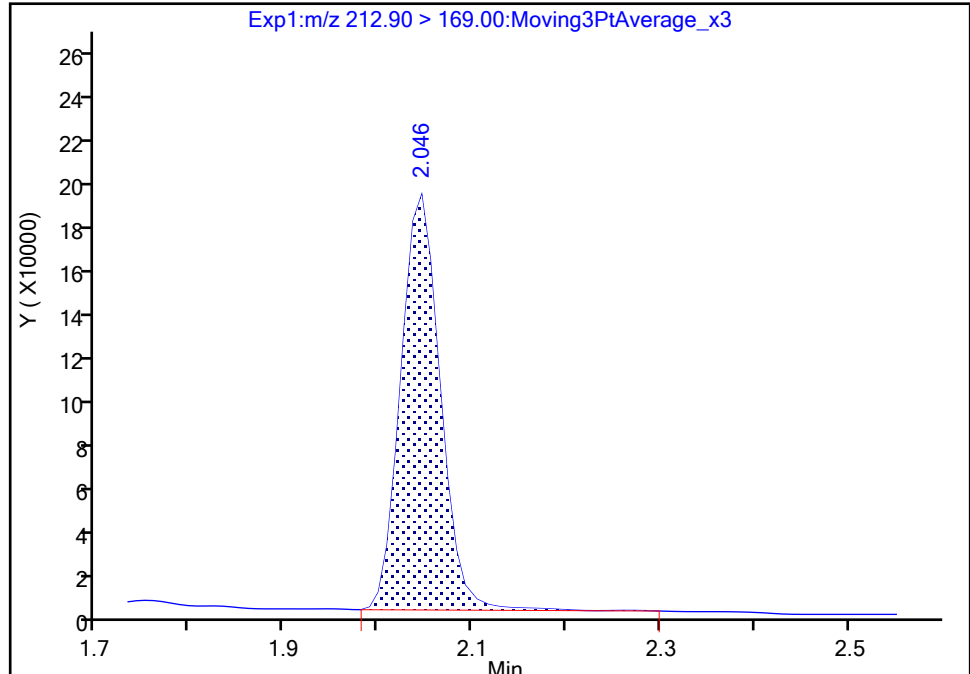
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Injection Date: 27-Oct-2020 19:34:04 Instrument ID: LC812
Lims ID: 480-176996-C-2-B MS
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 16 Worklist Smp#: 19
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

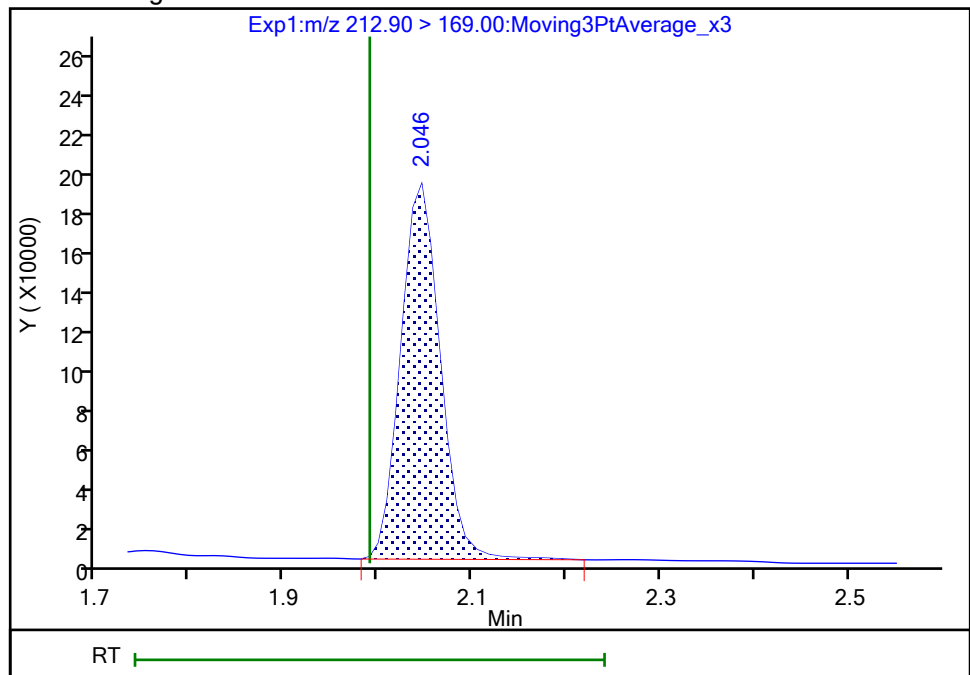
RT: 2.05
Area: 550984
Amount: 0.872476
Amount Units: ng/ml

Processing Integration Results



RT: 2.05
Area: 549935
Amount: 0.870815
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:19:15

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

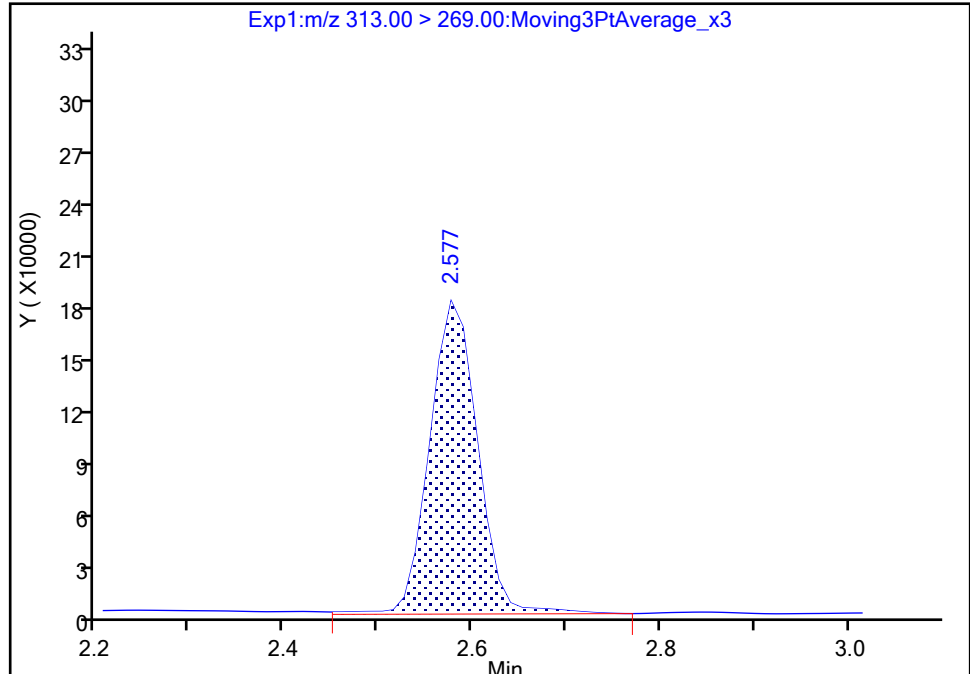
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A19.d
Injection Date: 27-Oct-2020 19:34:04 Instrument ID: LC812
Lims ID: 480-176996-C-2-B MS
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 16 Worklist Smp#: 19
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

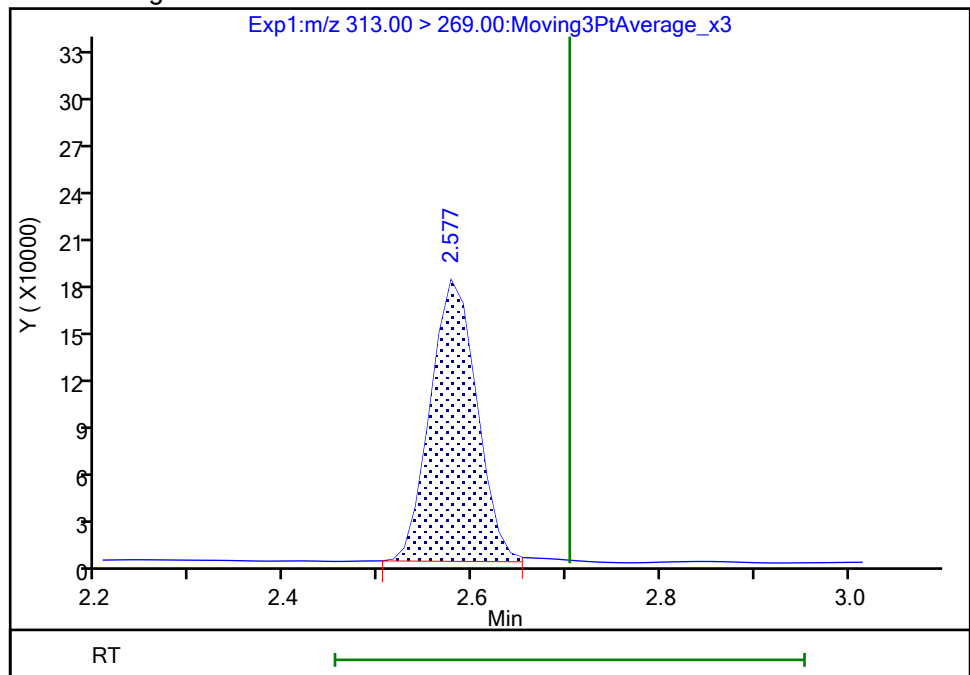
RT: 2.58
Area: 643790
Amount: 0.938766
Amount Units: ng/ml

Processing Integration Results



RT: 2.58
Area: 617165
Amount: 0.899942
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 12:54:35
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 862 of 906

Eurofins TestAmerica, Burlington

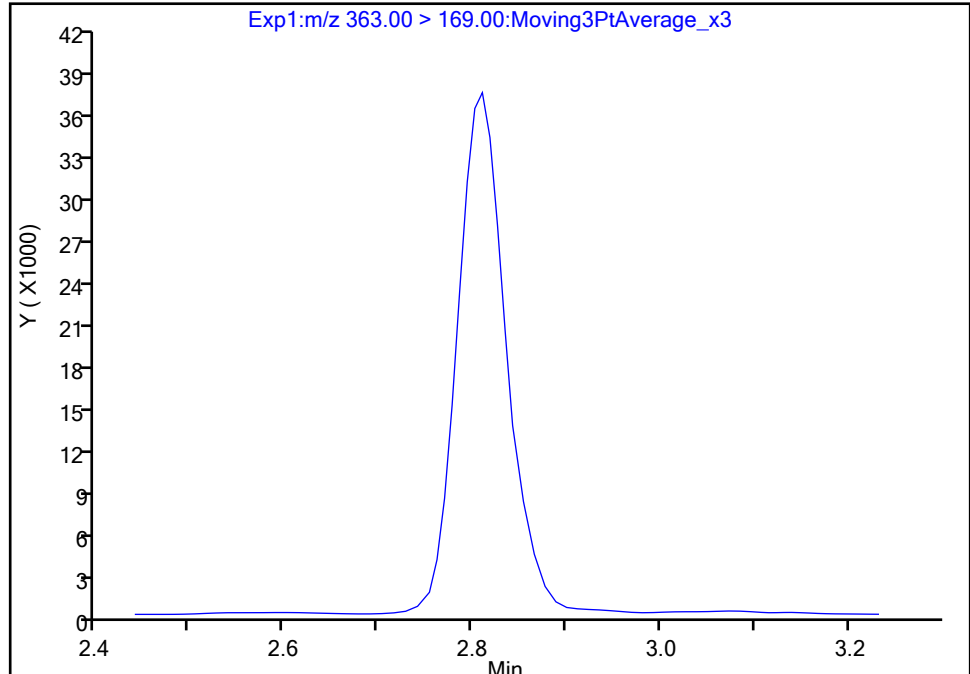
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A19.d
Injection Date: 27-Oct-2020 19:34:04 Instrument ID: LC812
Lims ID: 480-176996-C-2-B MS
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 16 Worklist Smp#: 19
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

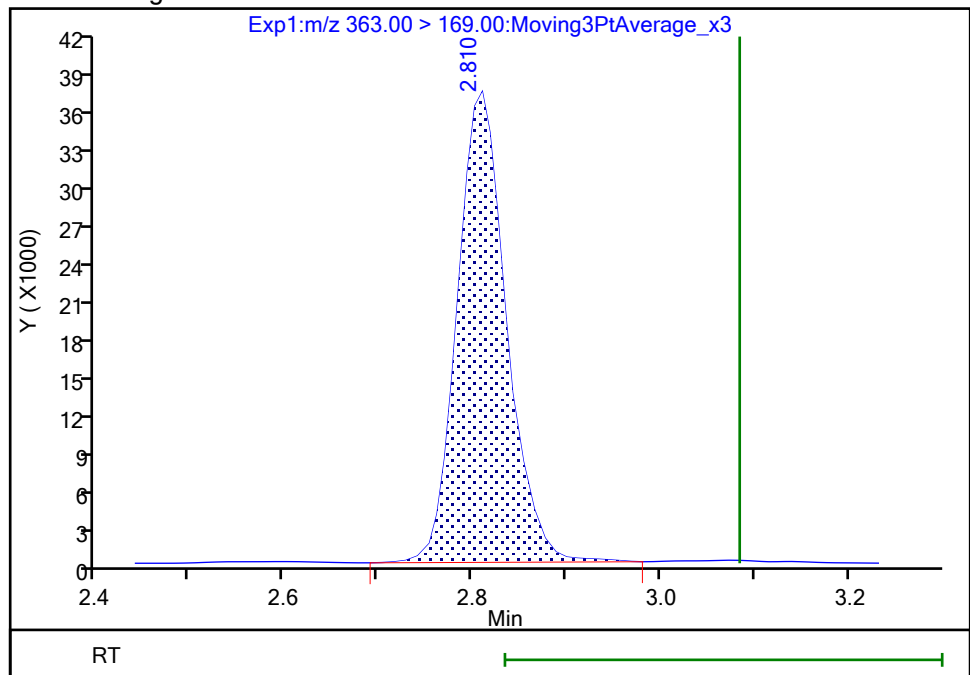
Not Detected
Expected RT: 3.08

Processing Integration Results



RT: 2.81
Area: 134171
Amount: 0.907701
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:20:15
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 863 of 906

Eurofins TestAmerica, Burlington

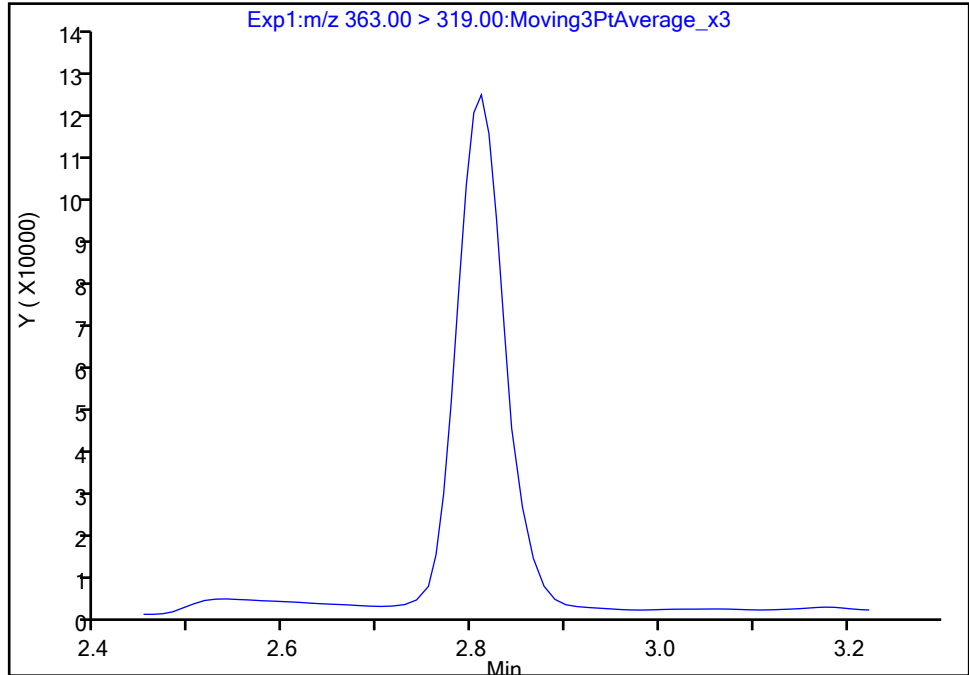
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A19.d
Injection Date: 27-Oct-2020 19:34:04 Instrument ID: LC812
Lims ID: 480-176996-C-2-B MS
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 16 Worklist Smp#: 19
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

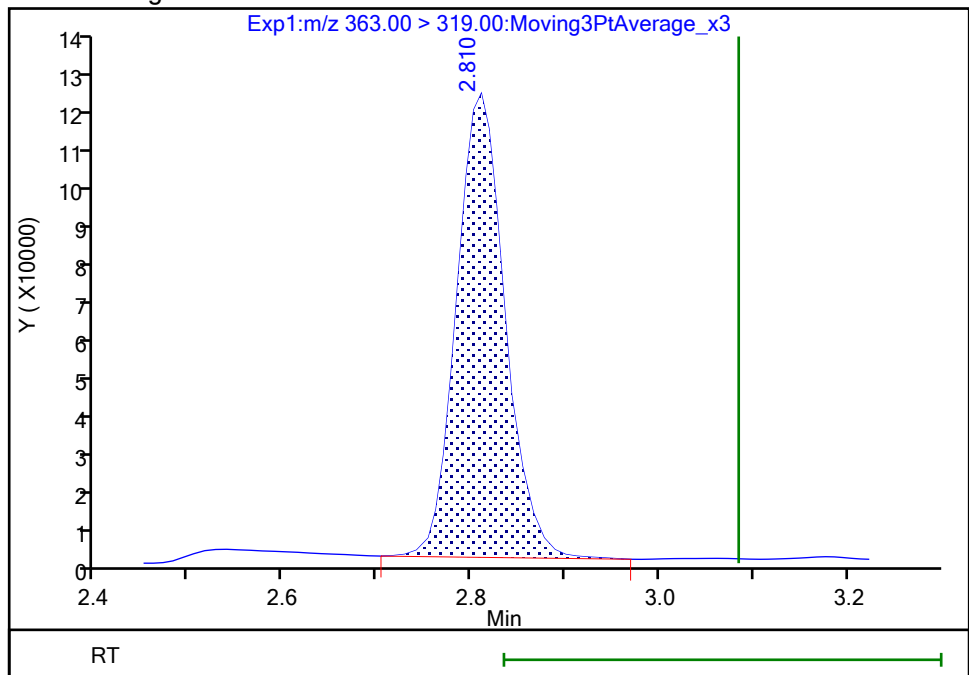
Not Detected
Expected RT: 3.08

Processing Integration Results



Manual Integration Results

RT: 2.81
Area: 439330
Amount: 0.907701
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 09:20:29

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

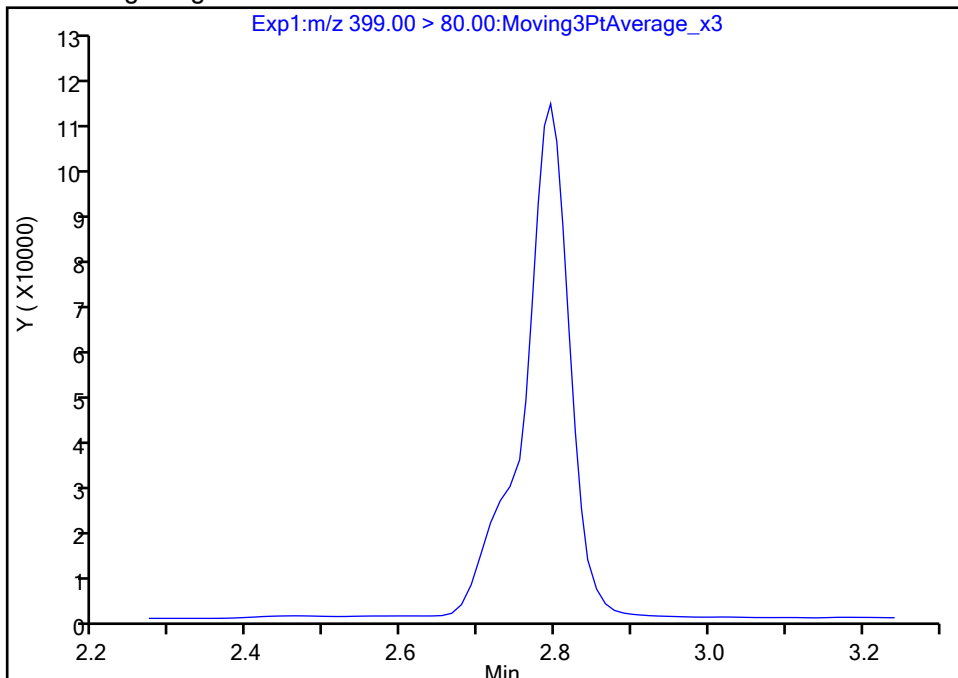
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A19.d
Injection Date: 27-Oct-2020 19:34:04 Instrument ID: LC812
Lims ID: 480-176996-C-2-B MS
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 16 Worklist Smp#: 19
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

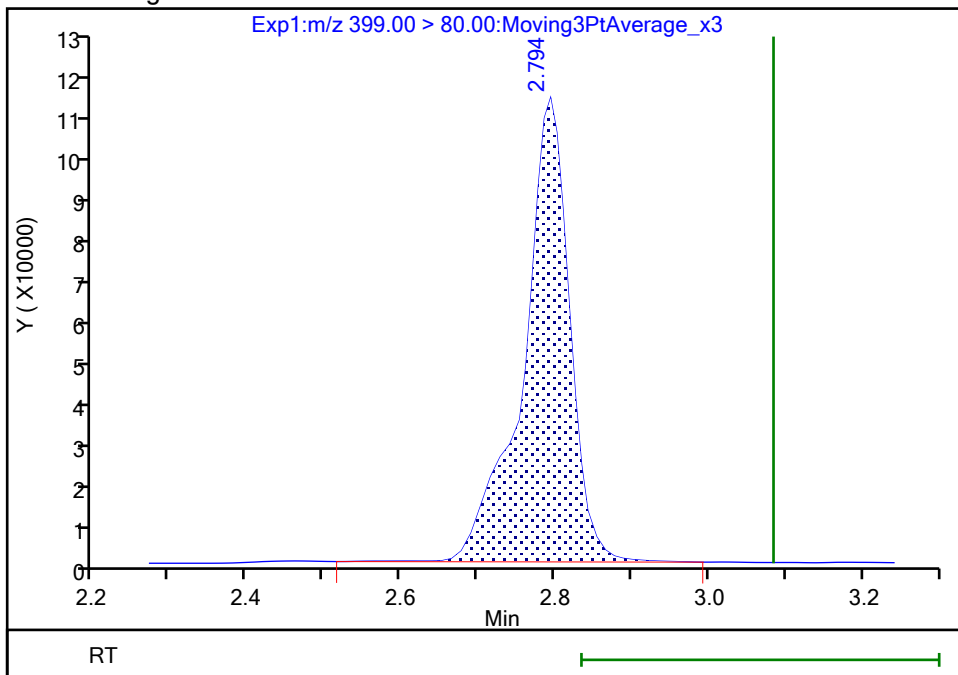
Not Detected
Expected RT: 3.08

Processing Integration Results



Manual Integration Results

RT: 2.79
Area: 460230
Amount: 0.852357
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 09:19:56

Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

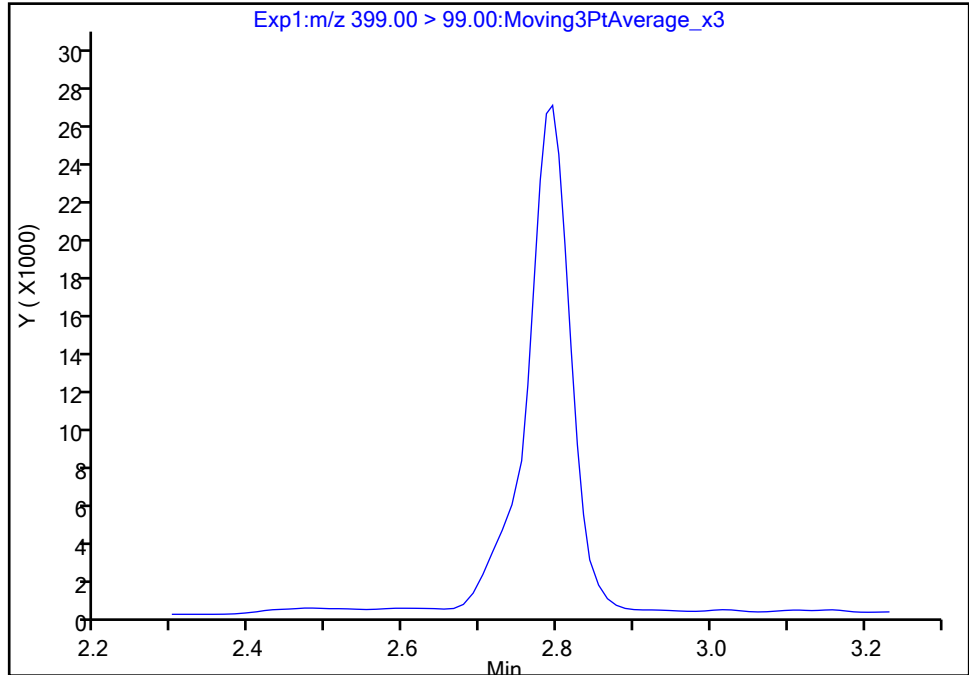
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A19.d
Injection Date: 27-Oct-2020 19:34:04 Instrument ID: LC812
Lims ID: 480-176996-C-2-B MS
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 16 Worklist Smp#: 19
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

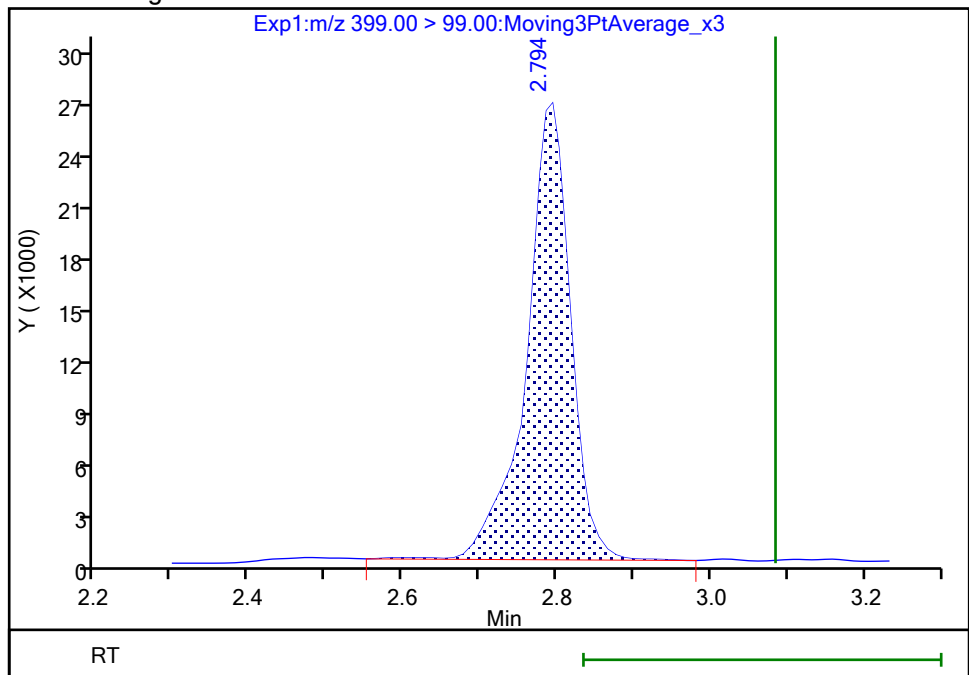
Not Detected
Expected RT: 3.08

Processing Integration Results



Manual Integration Results

RT: 2.79
Area: 105905
Amount: 0.852357
Amount Units: ng/ml



Reviewer: khanphomeea, 28-Oct-2020 09:19:56

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

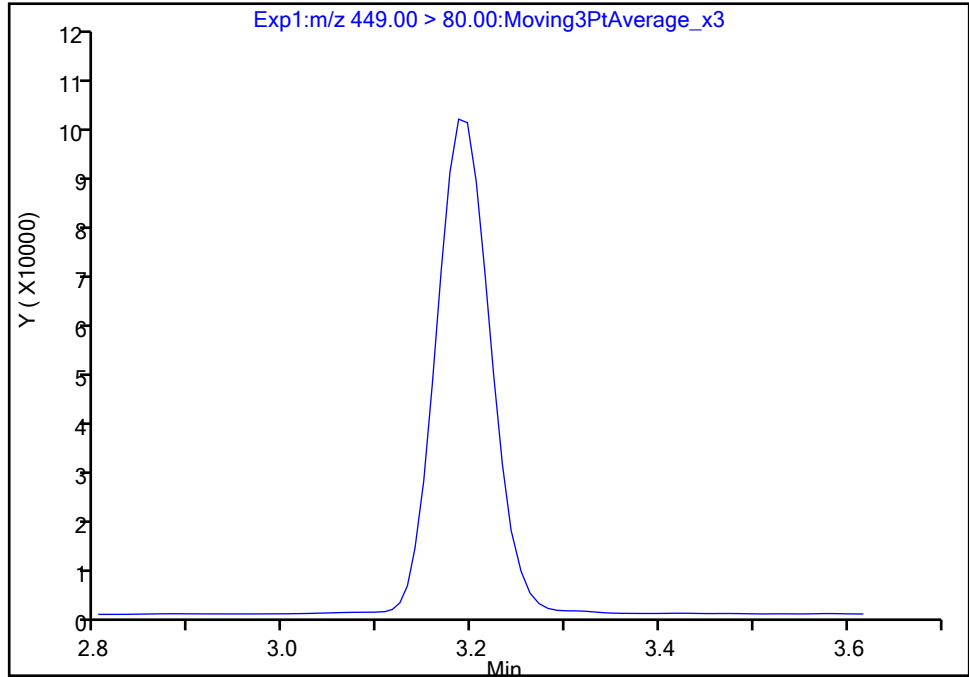
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Injection Date: 27-Oct-2020 19:34:04 Instrument ID: LC812
Lims ID: 480-176996-C-2-B MS
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 16 Worklist Smp#: 19
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

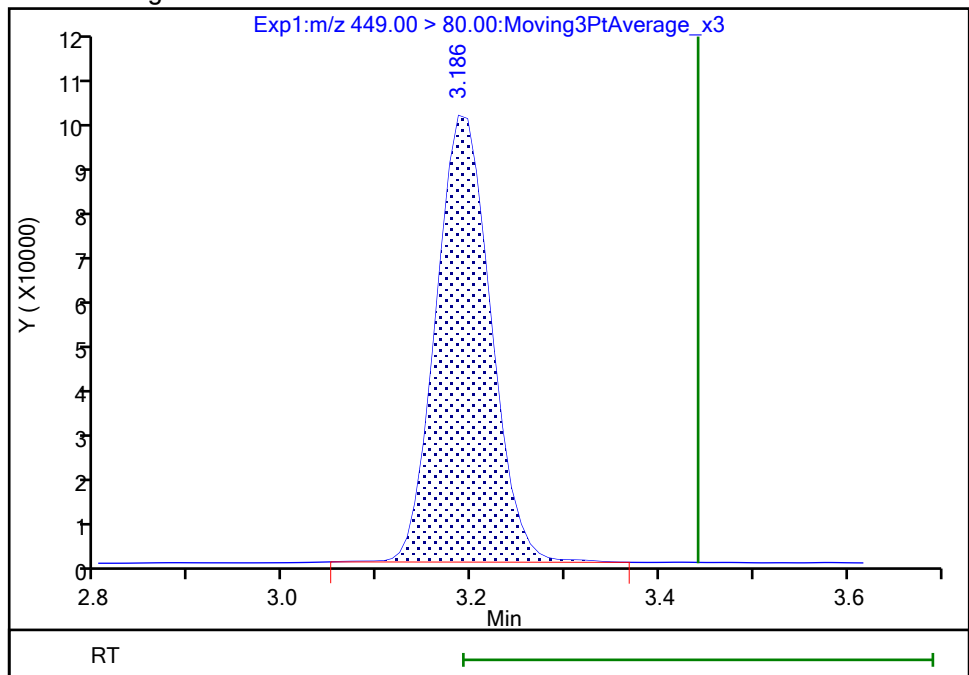
Not Detected
Expected RT: 3.44

Processing Integration Results



RT: 3.19
Area: 389130
Amount: 0.844327
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:20:44

Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

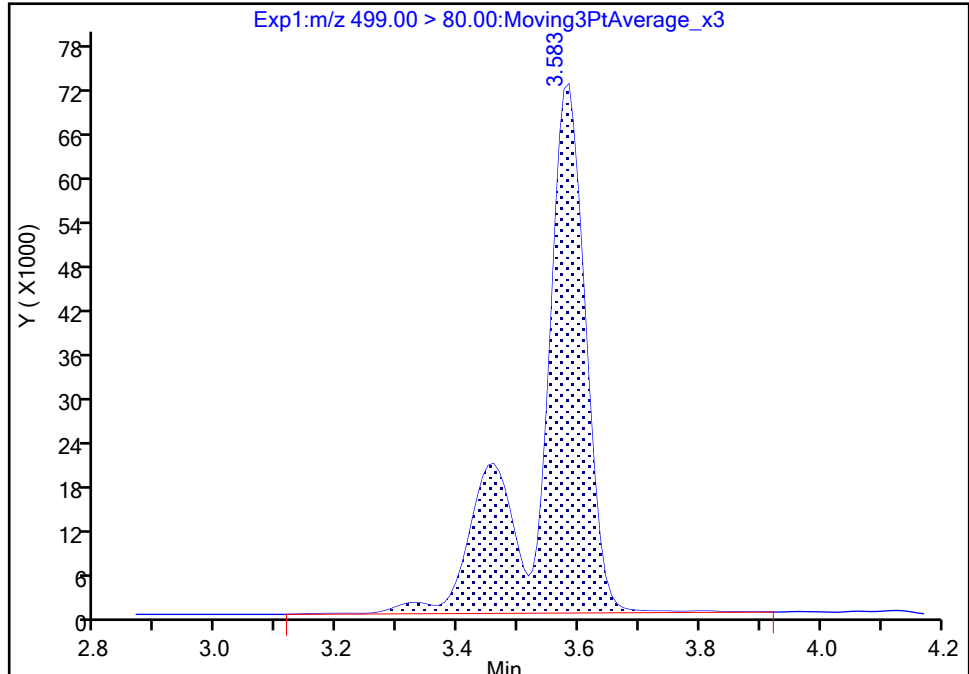
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Injection Date: 27-Oct-2020 19:34:04 Instrument ID: LC812
Lims ID: 480-176996-C-2-B MS
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 16 Worklist Smp#: 19
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

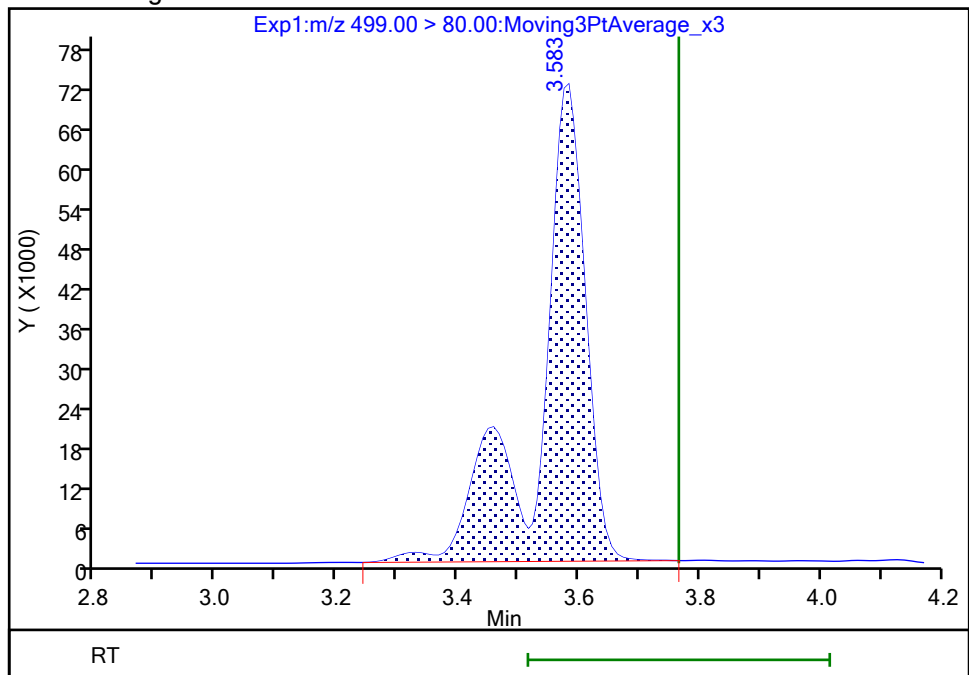
RT: 3.58
Area: 393843
Amount: 0.911073
Amount Units: ng/ml

Processing Integration Results



RT: 3.58
Area: 389163
Amount: 0.900247
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:21:09

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

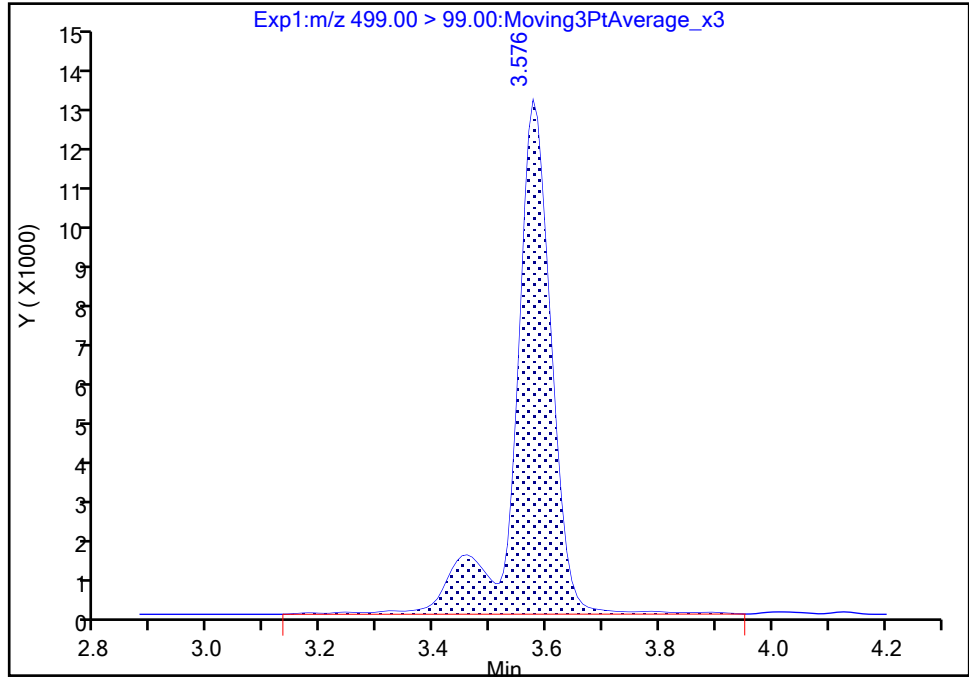
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A19.d
Injection Date: 27-Oct-2020 19:34:04 Instrument ID: LC812
Lims ID: 480-176996-C-2-B MS
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 16 Worklist Smp#: 19
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

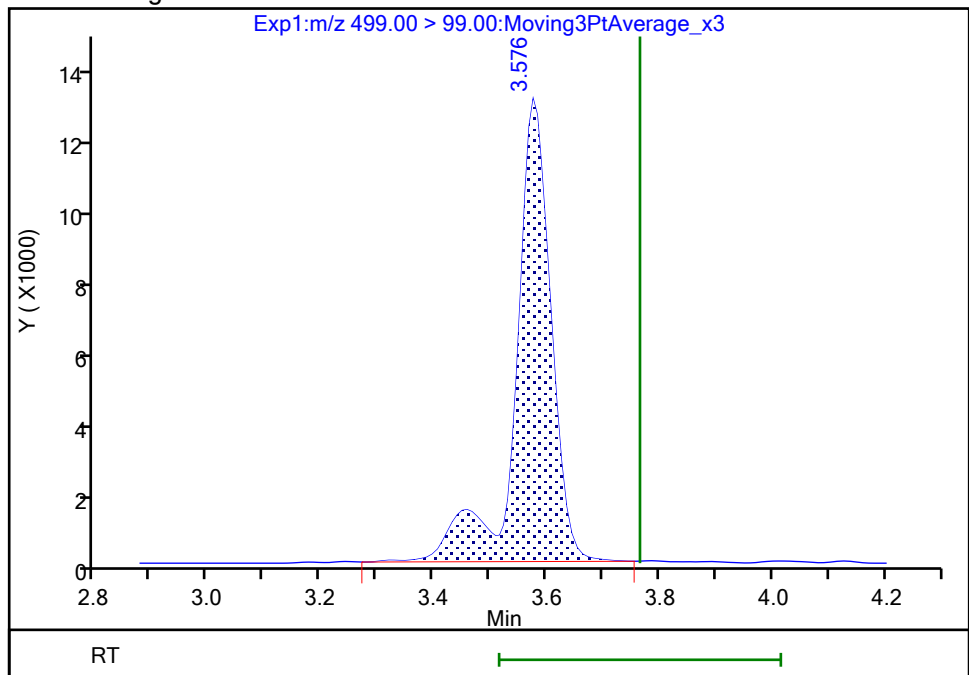
RT: 3.58
Area: 57965
Amount: 0.911073
Amount Units: ng/ml

Processing Integration Results



RT: 3.58
Area: 56171
Amount: 0.900247
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:21:19

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

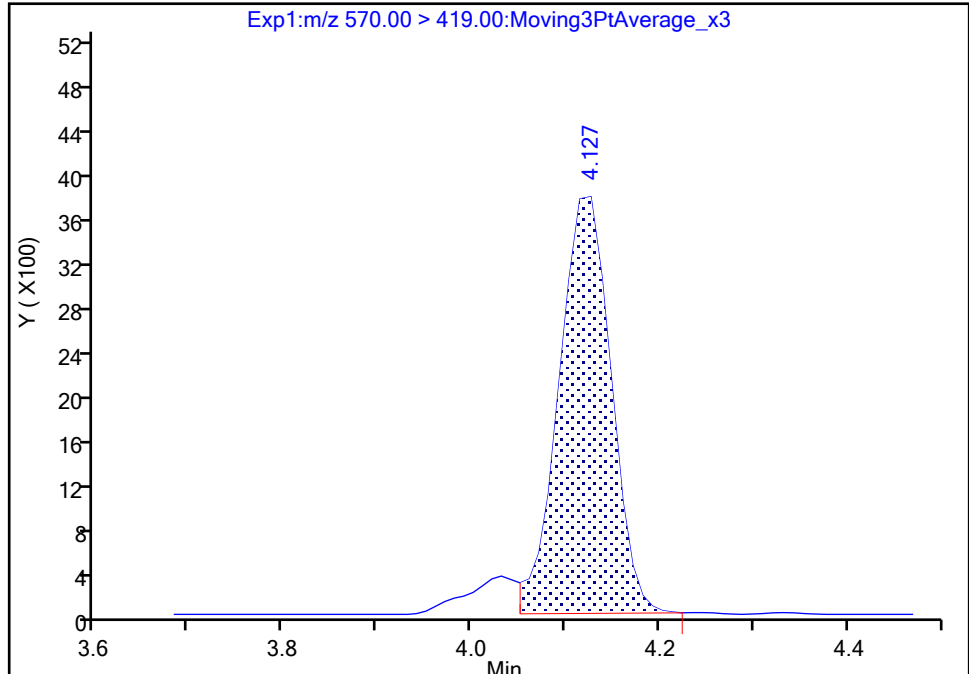
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A19.d
Injection Date: 27-Oct-2020 19:34:04 Instrument ID: LC812
Lims ID: 480-176996-C-2-B MS
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 16 Worklist Smp#: 19
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

28 N-methylperfluorooctanesulfonami, CAS: 2355-31-9

Signal: 1

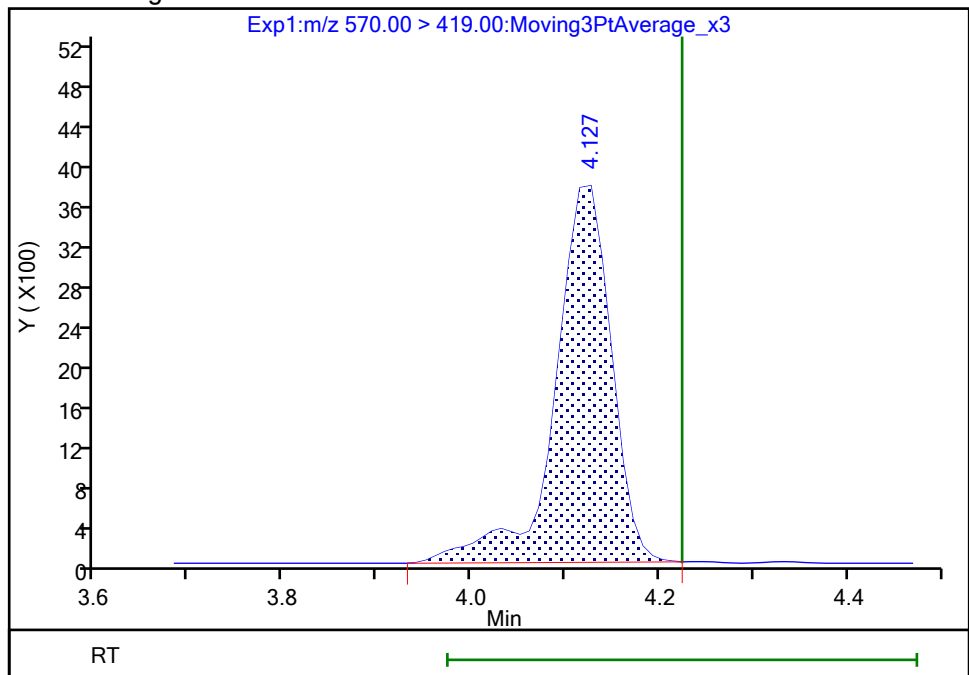
RT: 4.13
Area: 14536
Amount: 0.813763
Amount Units: ng/ml

Processing Integration Results



RT: 4.13
Area: 15787
Amount: 0.883798
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:21:39

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

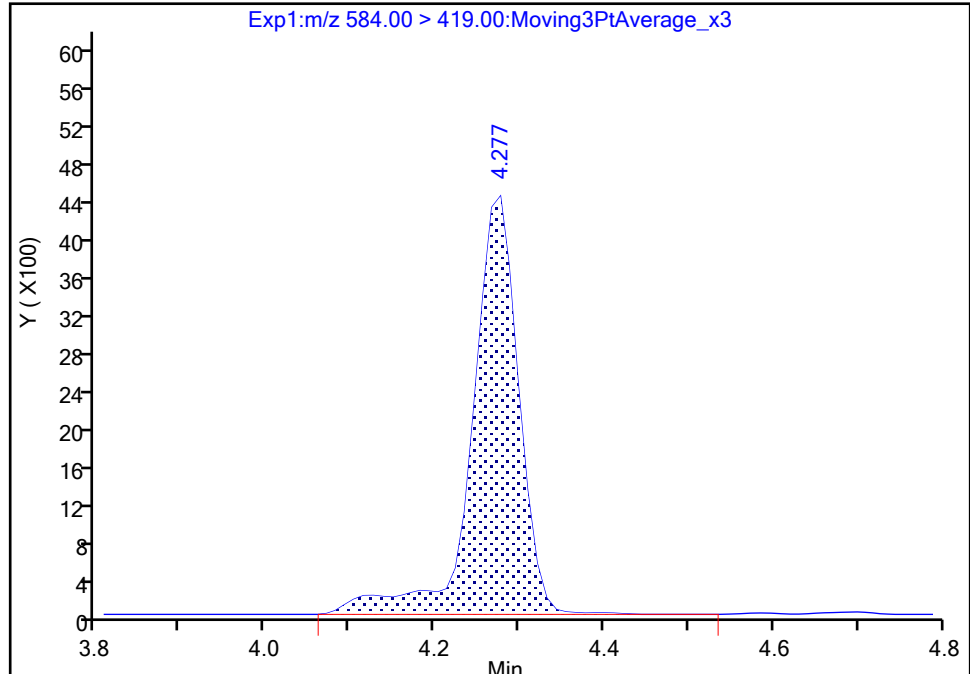
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Injection Date: 27-Oct-2020 19:34:04 Instrument ID: LC812
Lims ID: 480-176996-C-2-B MS
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 16 Worklist Smp#: 19
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

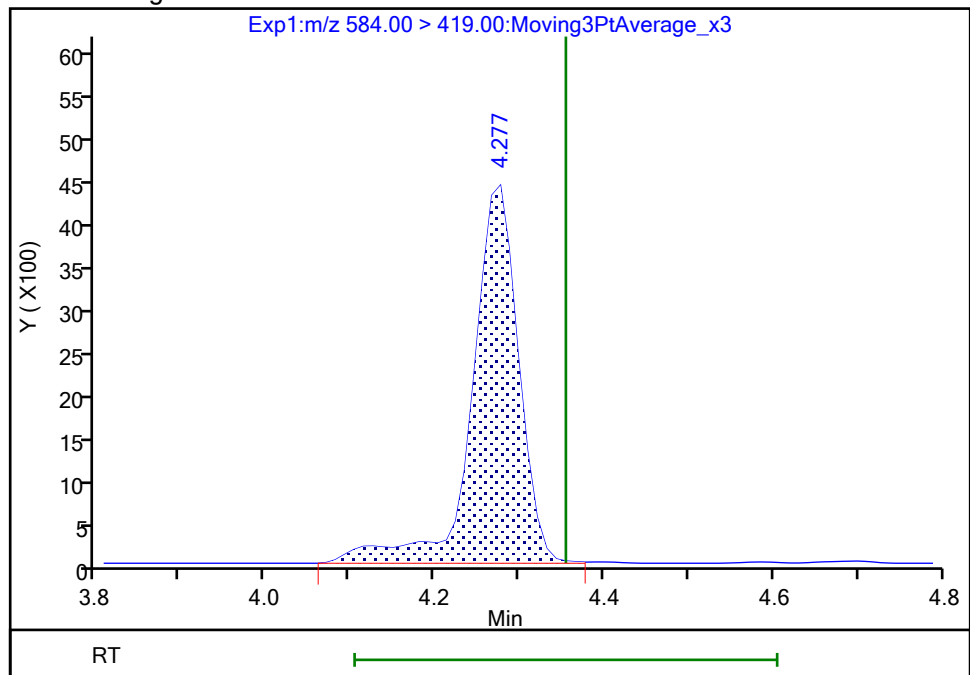
RT: 4.28
Area: 17111
Amount: 0.843931
Amount Units: ng/ml

Processing Integration Results



RT: 4.28
Area: 17071
Amount: 0.841958
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:21:49

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

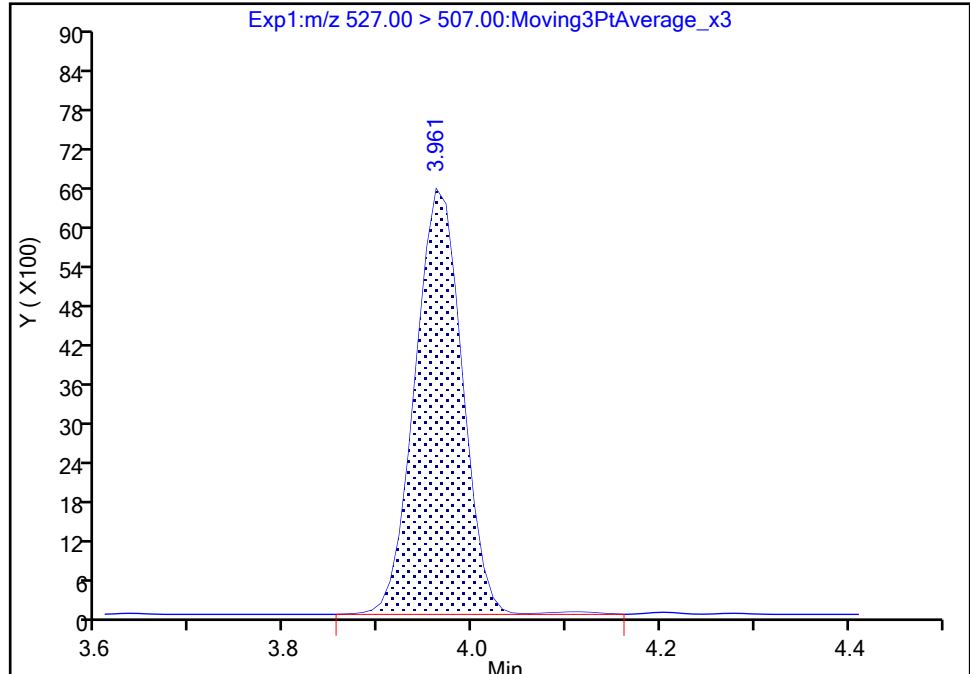
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Injection Date: 27-Oct-2020 19:34:04 Instrument ID: LC812
Lims ID: 480-176996-C-2-B MS
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 16 Worklist Smp#: 19
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

25 1H,1H,2H,2H-perfluorodecanesulfo, CAS: 39108-34-4

Signal: 1

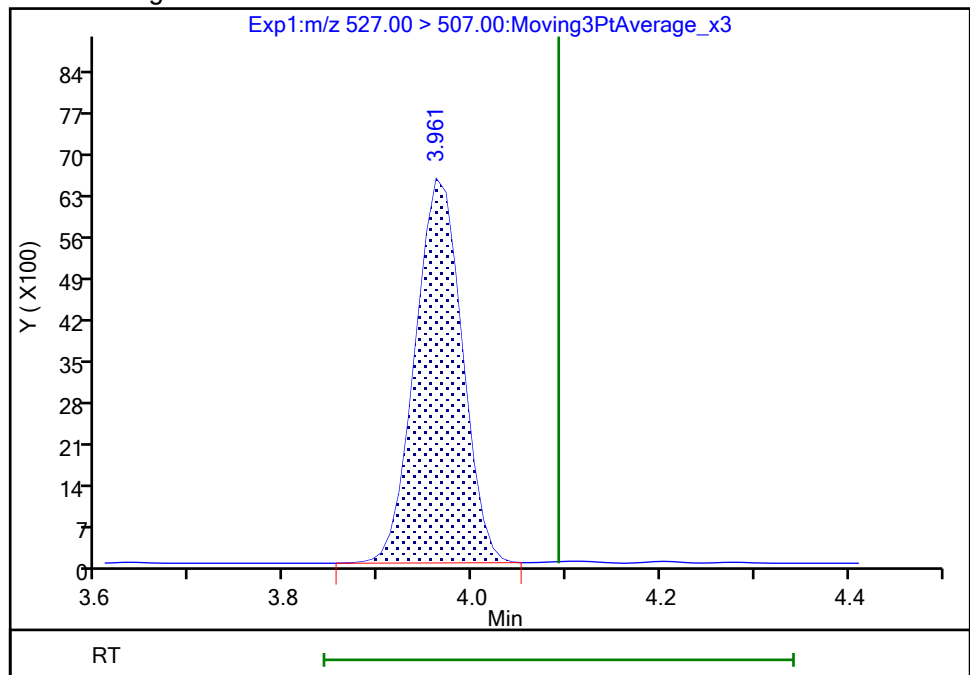
RT: 3.96
Area: 22715
Amount: 0.854330
Amount Units: ng/ml

Processing Integration Results



RT: 3.96
Area: 22527
Amount: 0.847260
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:21:30

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

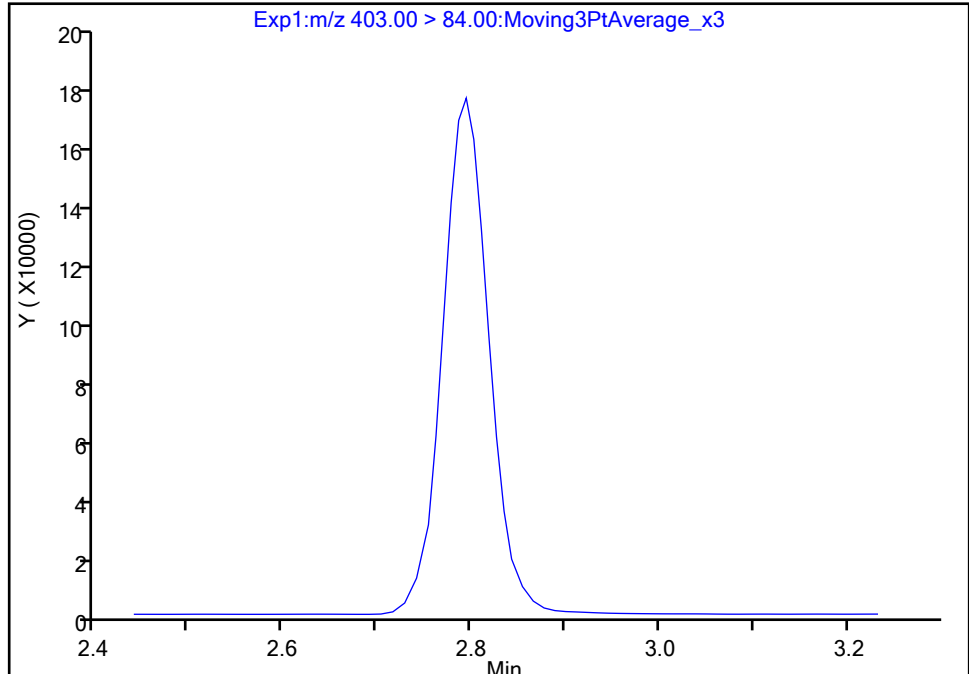
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A19.d
Injection Date: 27-Oct-2020 19:34:04 Instrument ID: LC812
Lims ID: 480-176996-C-2-B MS
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 16 Worklist Smp#: 19
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

D 11 18O2 PFHxS, CAS: STL00994

Signal: 1

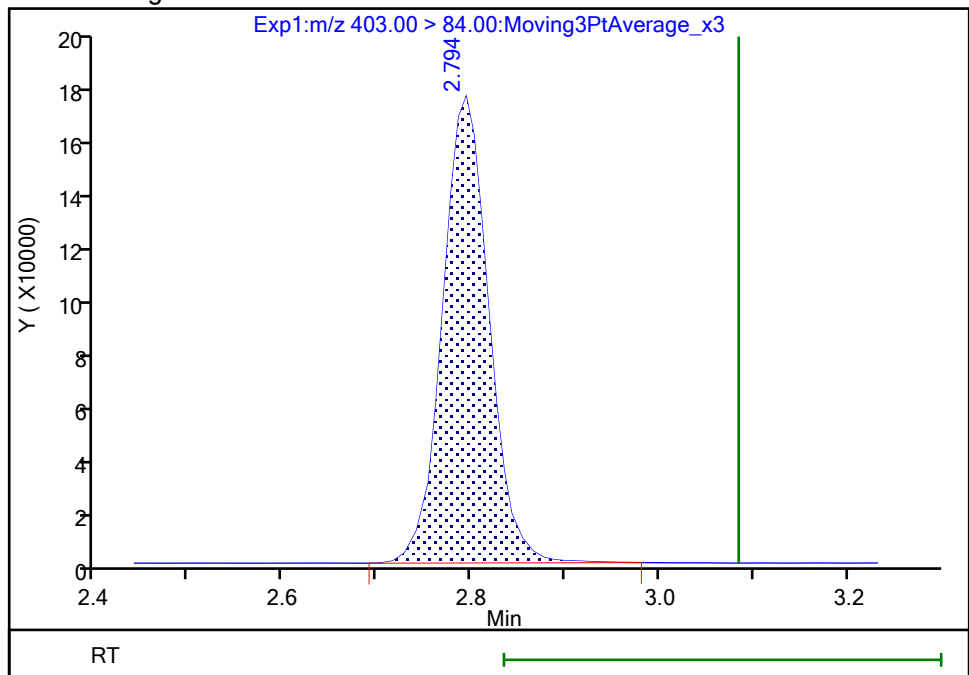
Not Detected
Expected RT: 3.08

Processing Integration Results



RT: 2.79
Area: 578129
Amount: 1.206680
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:18:17

Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

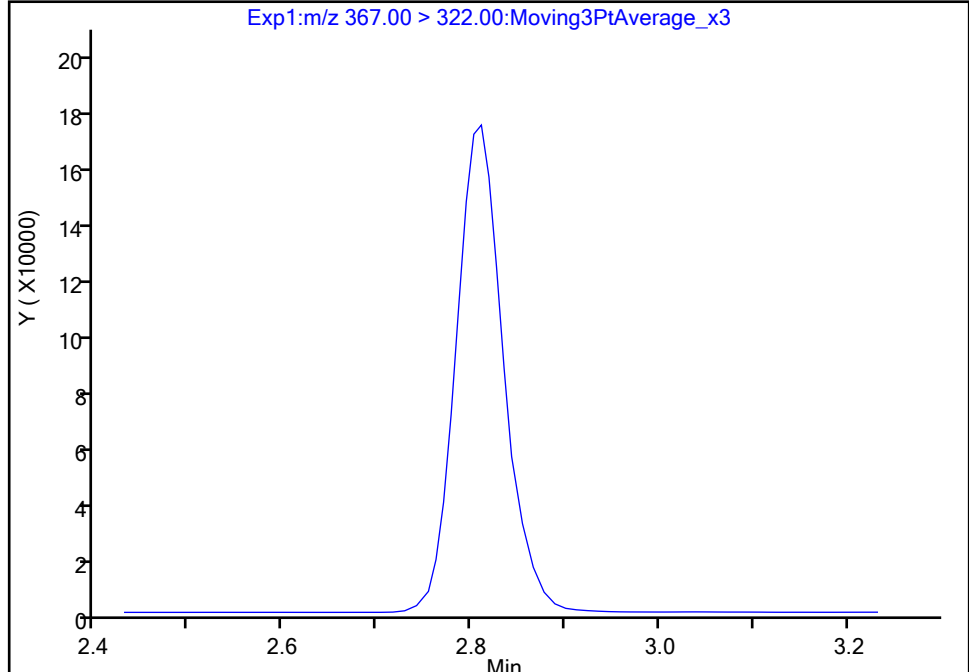
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Injection Date: 27-Oct-2020 19:34:04 Instrument ID: LC812
Lims ID: 480-176996-C-2-B MS
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 16 Worklist Smp#: 19
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

D 9 13C4 PFHpA, CAS: STL01892

Signal: 1

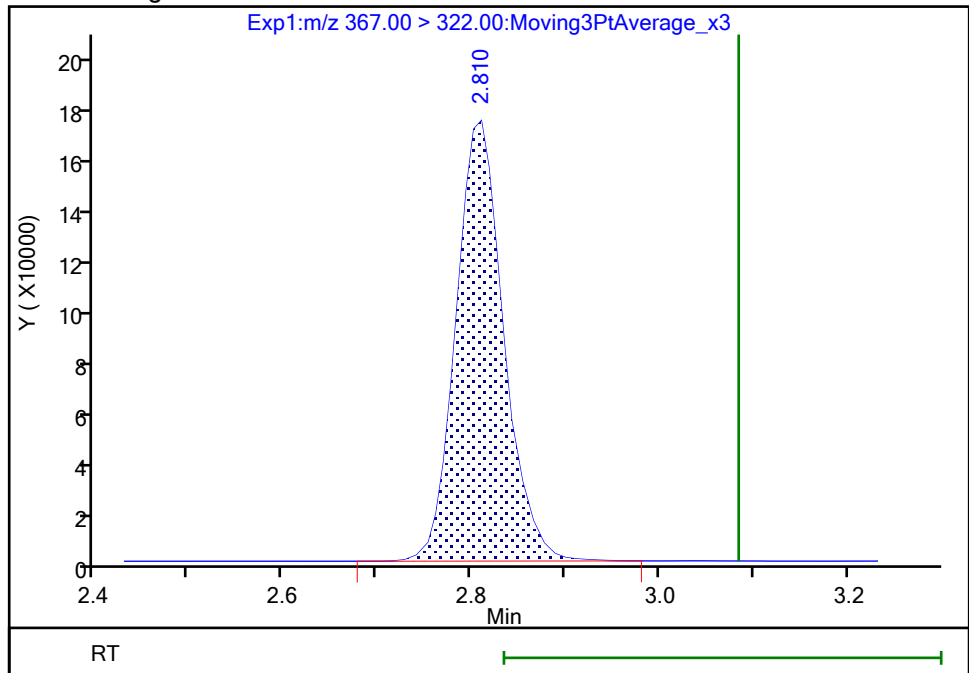
Not Detected
Expected RT: 3.08

Processing Integration Results



RT: 2.81
Area: 603760
Amount: 1.175520
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:18:22

Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

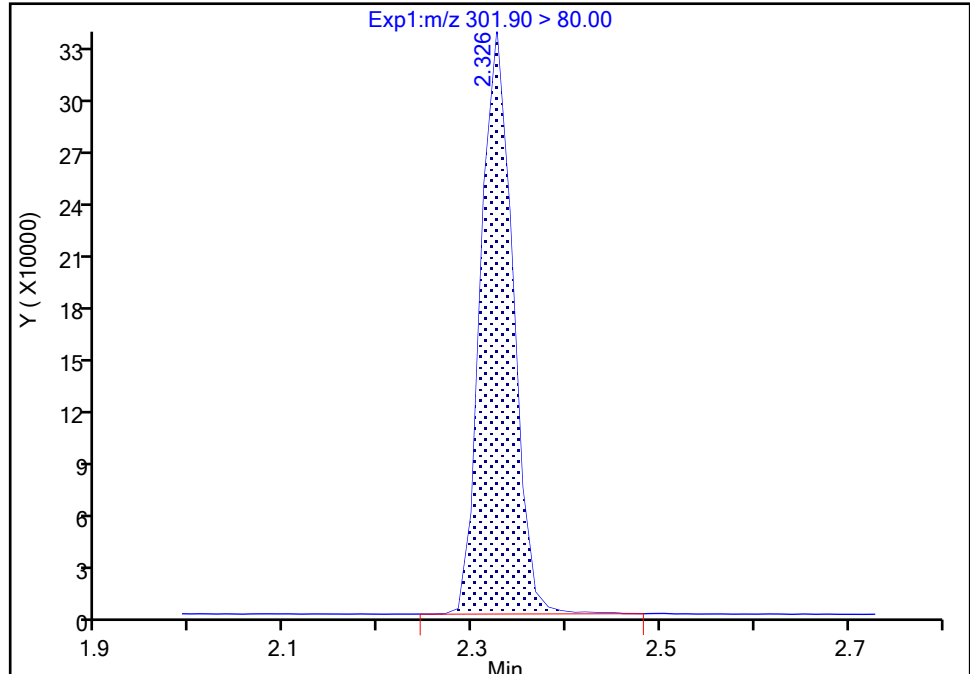
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Injection Date: 27-Oct-2020 19:34:04 Instrument ID: LC812
Lims ID: 480-176996-C-2-B MS
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 16 Worklist Smp#: 19
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

D 47 13C3 PFBS, CAS: STL02337

Signal: 1

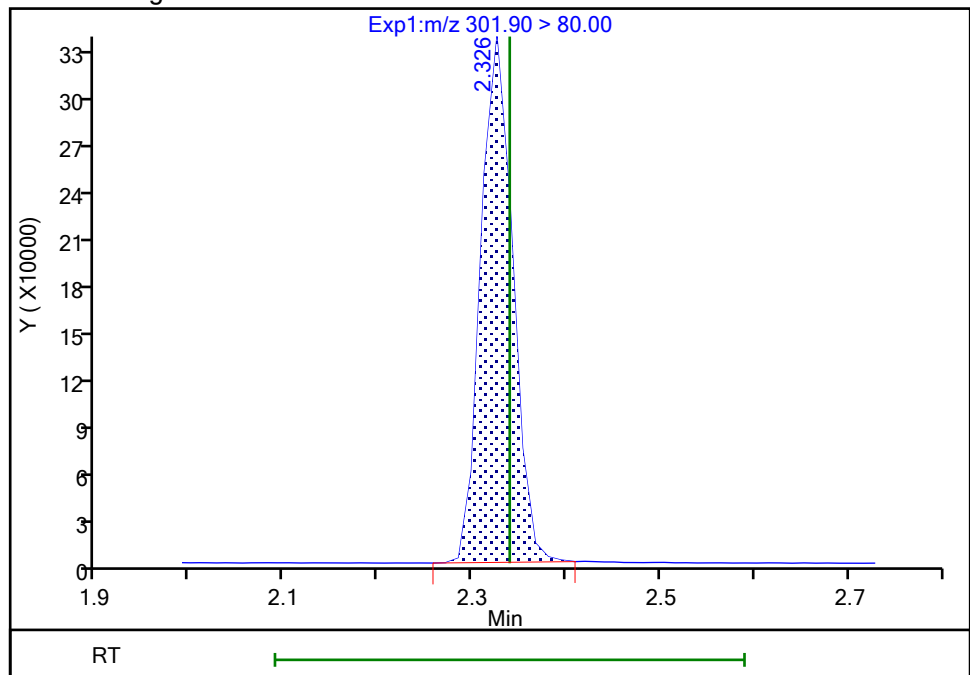
RT: 2.33
Area: 789268
Amount: 1.181968
Amount Units: ng/ml

Processing Integration Results



RT: 2.33
Area: 783990
Amount: 1.174064
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:18:32

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins TestAmerica, Burlington</u>	Job No.: <u>480-176996-1</u>
SDG No.: _____	
Client Sample ID: <u>TPW-33R MSD</u>	Lab Sample ID: <u>480-176996-2 MSD</u>
Matrix: <u>Water</u>	Lab File ID: <u>PA201027A20.d</u>
Analysis Method: <u>537 (modified)</u>	Date Collected: <u>10/21/2020 09:00</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/27/2020 09:15</u>
Sample wt/vol: <u>281.6(mL)</u>	Date Analyzed: <u>10/27/2020 19:42</u>
Con. Extract Vol.: <u>10(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>20(uL)</u>	GC Column: <u>C-18</u> ID: <u>4.6 (mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>160481</u>	Units: <u>ng/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	30.4		4.4	1.0
2706-90-3	Perfluoropentanoic acid (PFPeA)	29.4		1.8	0.96
307-24-4	Perfluorohexanoic acid (PFHxA)	31.1		1.8	0.74
375-85-9	Perfluoroheptanoic acid (PFHpA)	32.8		1.8	0.41
335-67-1	Perfluorooctanoic acid (PFOA)	32.6		1.8	0.87
375-95-1	Perfluorononanoic acid (PFNA)	29.6		1.8	0.51
335-76-2	Perfluorodecanoic acid (PFDA)	30.3		1.8	0.41
2058-94-8	Perfluoroundecanoic acid (PFUnA)	29.4		1.8	0.65
307-55-1	Perfluorododecanoic acid (PFDoA)	33.0		1.8	0.41
72629-94-8	Perfluorotridecanoic acid (PFTriA)	32.2		1.8	0.38
376-06-7	Perfluorotetradecanoic acid (PFTeA)	35.2		1.8	0.52
375-73-5	Perfluorobutanesulfonic acid (PFBS)	27.8		1.8	0.56
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	29.5		1.8	0.59
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	31.8		1.8	0.35
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	34.8		1.8	0.77
335-77-3	Perfluorodecanesulfonic acid (PFDS)	28.4		1.8	0.43
754-91-6	Perfluorooctanesulfonamide (PFOSA)	32.0		1.8	0.51
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	30.2		4.4	0.70
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	28.9		4.4	0.83
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	28.4		4.4	0.64
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	29.2		1.8	0.59

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1
 SDG No.: _____
 Client Sample ID: TPW-33R MSD Lab Sample ID: 480-176996-2 MSD
 Matrix: Water Lab File ID: PA201027A20.d
 Analysis Method: 537 (modified) Date Collected: 10/21/2020 09:00
 Extraction Method: 3535 Date Extracted: 10/27/2020 09:15
 Sample wt/vol: 281.6(mL) Date Analyzed: 10/27/2020 19:42
 Con. Extract Vol.: 10(mL) Dilution Factor: 1
 Injection Volume: 20(uL) GC Column: C-18 ID: 4.6 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 160481 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	96		50-150
STL01892	13C4 PFHpA	95		50-150
STL00990	13C4 PFOA	94		50-150
STL00991	13C4 PFOS	89		50-150
STL00995	13C5 PFNA	97		50-150
STL00992	13C4 PFBA	79		25-150
STL00993	13C2 PFHxA	96		50-150
STL00996	13C2 PFDA	85		50-150
STL00997	13C2 PFUnA	82		50-150
STL00998	13C2 PFDoA	64		50-150
STL01056	13C8 FOSA	84		25-150
STL01893	13C5 PFPeA	92		25-150
STL02116	13C2 PFTeDA	61		50-150
STL02118	d3-NMeFOSAA	71		50-150
STL02117	d5-NEtFOSAA	74		50-150
STL02279	M2-6:2 FTS	115		25-150
STL02280	M2-8:2 FTS	109		25-150
STL02337	13C3 PFBS	90		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A20.d
 Lims ID: 480-176996-C-2-C MSD
 Client ID: TPW-33R
 Sample Type: MSD
 Inject. Date: 27-Oct-2020 19:42:19 ALS Bottle#: 17 Worklist Smp#: 20
 Injection Vol: 20.0 ul Dil. Factor: 1.0000
 Sample Info: 480-176996-C-2-C MSD
 Misc. Info.: 200-0043412-020 Plate: 1 Rack: 1
 Operator ID: lc812tech Instrument ID: LC812
 Method: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PFC_LC812.m
 Limit Group: LC_PFC_ICAL
 Last Update: 28-Oct-2020 13:19:14 Calib Date: 22-Sep-2020 20:11:57
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\LC812\20200922-42904.b\PA200922ICAL10.d
 Column 1 : C-18 (4.60 mm) Det: EXP1
 Process Host: CTX1652

First Level Reviewer: khanphomeea

Date: 28-Oct-2020 09:24:15

Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.972	1.981	-0.009	0.573	918860	0.99		79.2	11651	
2 Perfluorobutanoic acid										
212.90 > 169.00	1.981	1.990	-0.009	1.005	588616	0.8566		85.7	162	
D 3 13C5 PFPeA										
267.90 > 223.00	2.312	2.326	-0.014	0.672	762738	1.15		91.8	2070	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.312	2.326	-0.014	1.000	533494	0.8279		82.8	16.7	
D 47 13C3 PFBS										M
301.90 > 80.00	2.339	2.339	0.0	0.680	850705	1.05		90.4	63251	M
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.339	2.353	-0.014	1.000	571776	0.7842	Target=2.07	88.7	176	
298.90 > 99.00	2.339	2.353	-0.014	1.000	282467		2.02(1.04-3.11)		80.8	
D 60 M2-4:2 FTS										M
329.00 > 81.00	2.653	2.665	-0.012	0.771	77831	1.28		110	15.2	M
61 1H,1H,2H,2H-perfluorohexanesulfo										
327.00 > 307.00	2.653	2.665	-0.012	1.000	90676	0.8416		90.1	1436	
D 7 13C2 PFHxA										
315.00 > 270.00	2.691	2.703	-0.012	0.782	824380	1.20		96.3	4289	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.691	2.703	-0.012	1.000	581151	0.8751	Target=12.44	87.5	74.8	
313.00 > 119.00	2.691	2.703	-0.012	1.000	50377		11.54(6.22-18.66)		109	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.703	2.703	0.0	0.880	554430	0.8360	Target=3.64	89.1	204	
349.00 > 99.00	2.691	2.703	-0.012	0.876	165685		3.35(1.82-5.46)		86.5	
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.802	2.810	-0.008	0.814	119404	1.87		150	1530	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
67 Perfluoro(2-propoxypropanoic) ac										M
329.10 > 285.00	2.810	2.818	-0.008	1.003	115465	0.5681		56.8	42.3	M
D 11 18O2 PFHxS										
403.00 > 84.00	3.073	3.084	-0.011	0.893	662310	1.14		96.4	3561	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.073	3.084	-0.011	1.000	514675	0.8320	Target=4.60	91.4	317	M
399.00 > 99.00	3.073	3.084	-0.011	1.000	114804		4.48(2.30-6.91)		137	M
D 9 13C4 PFHpA										
367.00 > 322.00	3.073	3.084	-0.011	0.893	737494	1.18		94.7	3251	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.073	3.084	-0.011	1.000	545887	0.9233	Target=3.34	92.3	91.5	
363.00 > 169.00	3.073	3.084	-0.011	1.000	169915		3.21(1.67-5.01)		536	
77 DONA										
377.00 > 251.00	3.115	3.124	-0.009	0.830	1096392	0.8383	Target=2.44	89.0	2385	
377.00 > 85.00	3.115	3.124	-0.009	0.830	479210		2.29(1.22-3.67)		880	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.432	3.441	-0.009	0.914	440745	0.8962	Target=7.08	94.1	1047	
449.00 > 99.00	3.432	3.441	-0.009	0.914	63750		6.91(3.54-10.63)		252	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.432	3.441	-0.009	0.997	106061	1.37		115	241	
13 1H,1H,2H,2H-perfluorooctanesulfo										
427.00 > 407.00	3.432	3.441	-0.009	1.000	57012	0.7998		84.4	1189	
D 14 13C4 PFOA										
417.00 > 372.00	3.441	3.450	-0.009	1.000	747414	1.17		93.8	3402	
* 62 13C2 PFOA										
415.00 > 370.00	3.441	3.450	-0.009		809141	1.25			4645	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.441	3.458	-0.017	1.000	566427	0.9176	Target=2.29	91.8	261	
413.00 > 169.00	3.441	3.458	-0.017	1.000	257822		2.20(1.14-3.43)		613	M
D 18 13C4 PFOS										
503.00 > 80.00	3.754	3.765	-0.011	1.091	507237	1.07		89.3	1375	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.754	3.765	-0.011	1.000	452088	0.9801	Target=7.10	106	282	M
499.00 > 99.00	3.754	3.765	-0.011	1.000	59442		7.61(3.55-10.64)		389	M
D 19 13C5 PFNA										
468.00 > 423.00	3.775	3.786	-0.011	1.097	648367	1.21		96.6	4320	
20 Perfluorononanoic acid										
463.00 > 419.00	3.775	3.786	-0.011	1.000	439706	0.8324	Target=5.83	83.2	163	
463.00 > 169.00	3.775	3.786	-0.011	1.000	76490		5.75(2.91-8.74)		1246	
69 9-Chlorohexadecafluoro-3-oxanona										
531.00 > 351.00	3.921	3.922	-0.001	1.044	304744	0.7507		80.5	1871	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.041	4.052	-0.011	1.076	291516	0.7997	Target=3.38	83.3	1003	
549.00 > 99.00	4.041	4.052	-0.011	1.076	90801		3.21(1.69-5.08)		482	
D 23 13C2 PFDA										
515.00 > 470.00	4.071	4.082	-0.011	1.183	545635	1.06		84.8	4746	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
24 Perfluorodecanoic acid										
513.00 > 469.00	4.071	4.082	-0.011	1.000	367898	0.8519	Target=6.81 6.75(3.41-10.22)	85.2	621	
513.00 > 169.00	4.071	4.082	-0.011	1.000	54489				517	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.081	4.092	-0.011	1.186	119783	1.31		109	404	
25 1H,1H,2H,2H-perfluorodecanesulfo										
527.00 > 507.00	4.081	4.092	-0.011	1.000	32554	0.8222		85.8	9402	
D 21 13C8 FOSA										
506.00 > 78.00	4.138	4.139	-0.001	1.203	872656	1.05		84.1	3715	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.138	4.139	-0.001	1.000	588027	0.9010		90.1	1545	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.214	4.214	0.0	1.225	26172	0.8926		71.4	222	
28 N-methylperfluorooctanesulfonami										
570.00 > 419.00	4.214	4.224	-0.010	1.000	16793	0.8499		85.0	244	
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.298	4.309	-0.011	1.145	243875	0.7996	Target=3.31 3.39(1.66-4.97)	82.9	1021	
599.00 > 99.00	4.298	4.309	-0.011	1.145	71887				621	
D 30 13C2 PFUnA										
565.00 > 520.00	4.333	4.343	-0.010	1.259	400694	1.03		82.5	4259	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.333	4.343	-0.010	1.000	261424	0.8268	Target=6.57 5.61(3.28-9.85)	82.7	499	
563.00 > 169.00	4.333	4.343	-0.010	1.000	46576				770	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.344	4.343	0.001	1.262	29231	0.9274		74.2	647	
33 N-ethylperfluorooctanesulfonamid										
584.00 > 419.00	4.344	4.355	-0.011	1.000	17414	0.8134		81.3	543	M M
66 11-Chloroeicosafuoro-3-oxaundec										
631.00 > 451.00	4.423	4.422	0.001	1.178	249633	0.7129		75.7	4411	
D 36 13C2 PFDaA										
615.00 > 570.00	4.561	4.561	0.0	1.326	331103	0.8058		64.5	2853	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.561	4.561	0.0	1.000	240280	0.9302	Target=5.16 4.60(2.58-7.75)	93.0	433	
613.00 > 169.00	4.561	4.561	0.0	1.000	52213				910	
74 1H,1H,2H,2H-perfluorododecanesul										
627.00 > 607.00	4.586	4.585	0.001	1.124	14881	0.6764		70.2	579	
75 Perfluorododecanesulfonic acid (										
699.00 > 80.00	4.736	4.736	0.0	1.262	59360	0.6065	Target=0.45 0.45(0.22-0.67)	62.7	351	
699.00 > 99.00	4.736	4.736	0.0	1.262	130664				1029	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.772	4.772	0.0	1.046	199001	0.9071	Target=3.30 3.18(1.65-4.95)	90.7	254	
663.00 > 169.00	4.763	4.772	-0.009	1.044	62677				1404	
D 43 13C2 PFTeDA										
715.00 > 670.00	4.960	4.969	-0.009	1.441	224326	0.7664		61.3	2804	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.960	4.969	-0.009	1.000	40763	0.99	Target=1.06 1.00(0.53-1.59)	99.2	786	
713.00 > 219.00	4.960	4.969	-0.009	1.000	40706				1806	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 44 13C2 PFHxDA										
815.00 > 770.00	5.318	5.329	-0.011	1.546	233347	0.7035		56.3	3738	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.329	5.329	0.0	1.002	145775	0.8753	Target=3.06	87.5	186	
813.00 > 169.00	5.329	5.329	0.0	1.002	52134		2.80(1.53-4.58)		1435	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.685	5.694	-0.009	1.069	135048	0.9680	Target=2.82	96.8	402	
913.00 > 169.00	5.685	5.694	-0.009	1.069	49594		2.72(1.41-4.24)		1081	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A20.d

Injection Date: 27-Oct-2020 19:42:19

Instrument ID: LC812

Lims ID: 480-176996-C-2-C MSD

Client ID: TPW-33R

Operator ID: lc812tech

ALS Bottle#: 17

Worklist Smp#: 20

Injection Vol: 20.0 ul

Dil. Factor: 1.0000

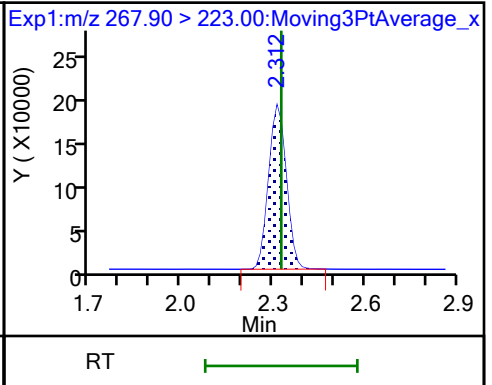
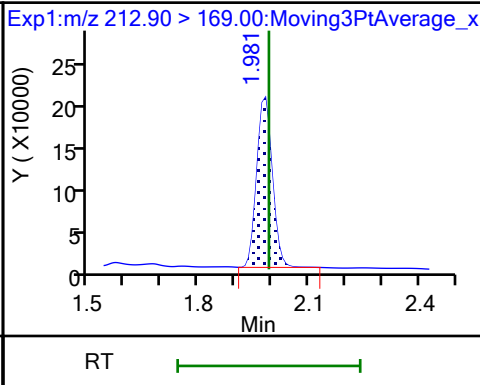
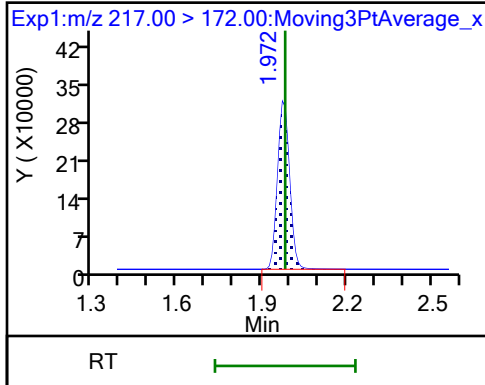
Method: PFC_LC812

Limit Group: LC_PFC_ICAL

D 1 13C4 PFBA

2 Perfluorobutanoic acid

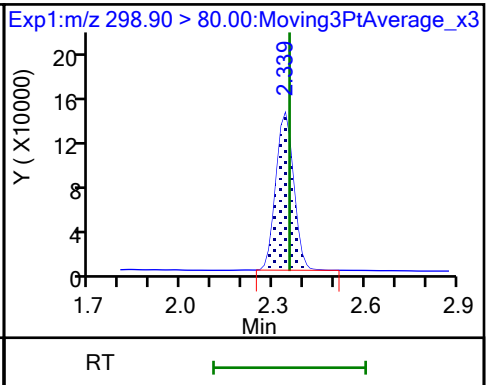
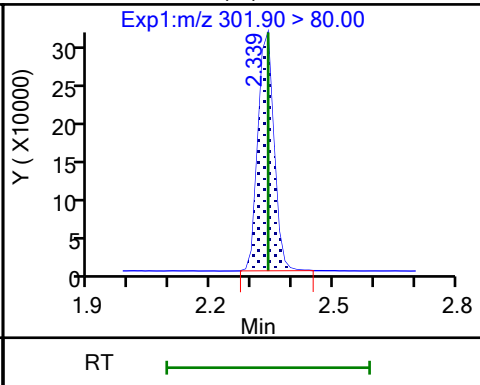
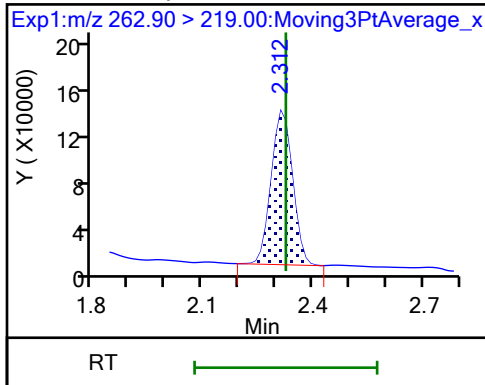
D 3 13C5 PFPeA



4 Perfluoropentanoic acid

D 47 13C3 PFBS (M)

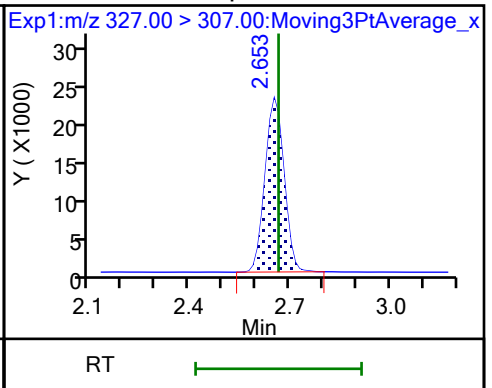
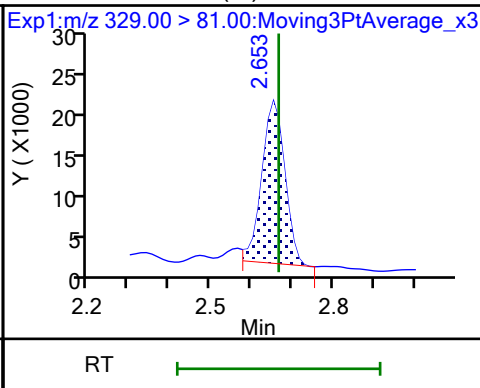
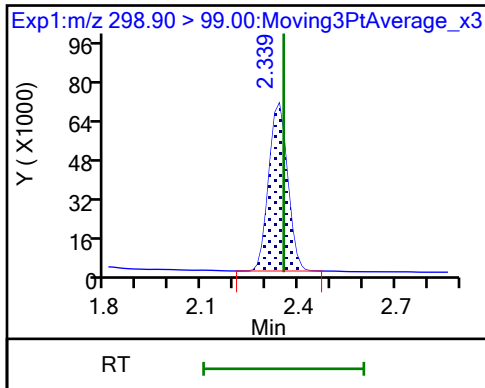
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

D 60 M2-4:2 FTS (M)

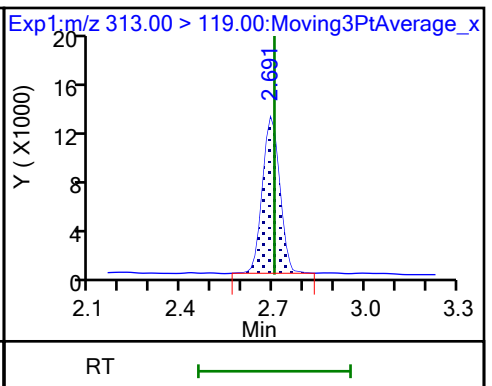
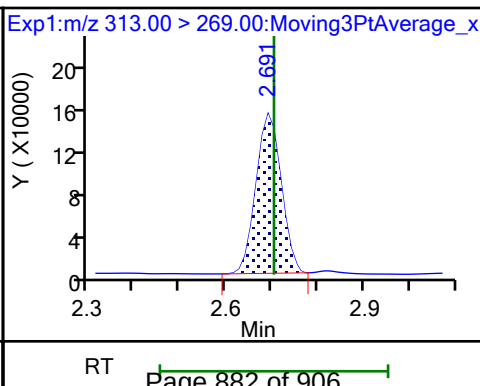
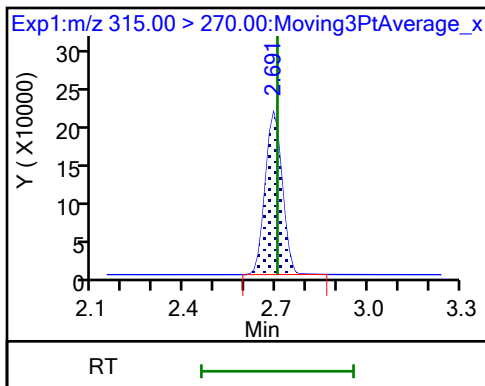
61 1H,1H,2H,2H-perfluorohexanesulfo

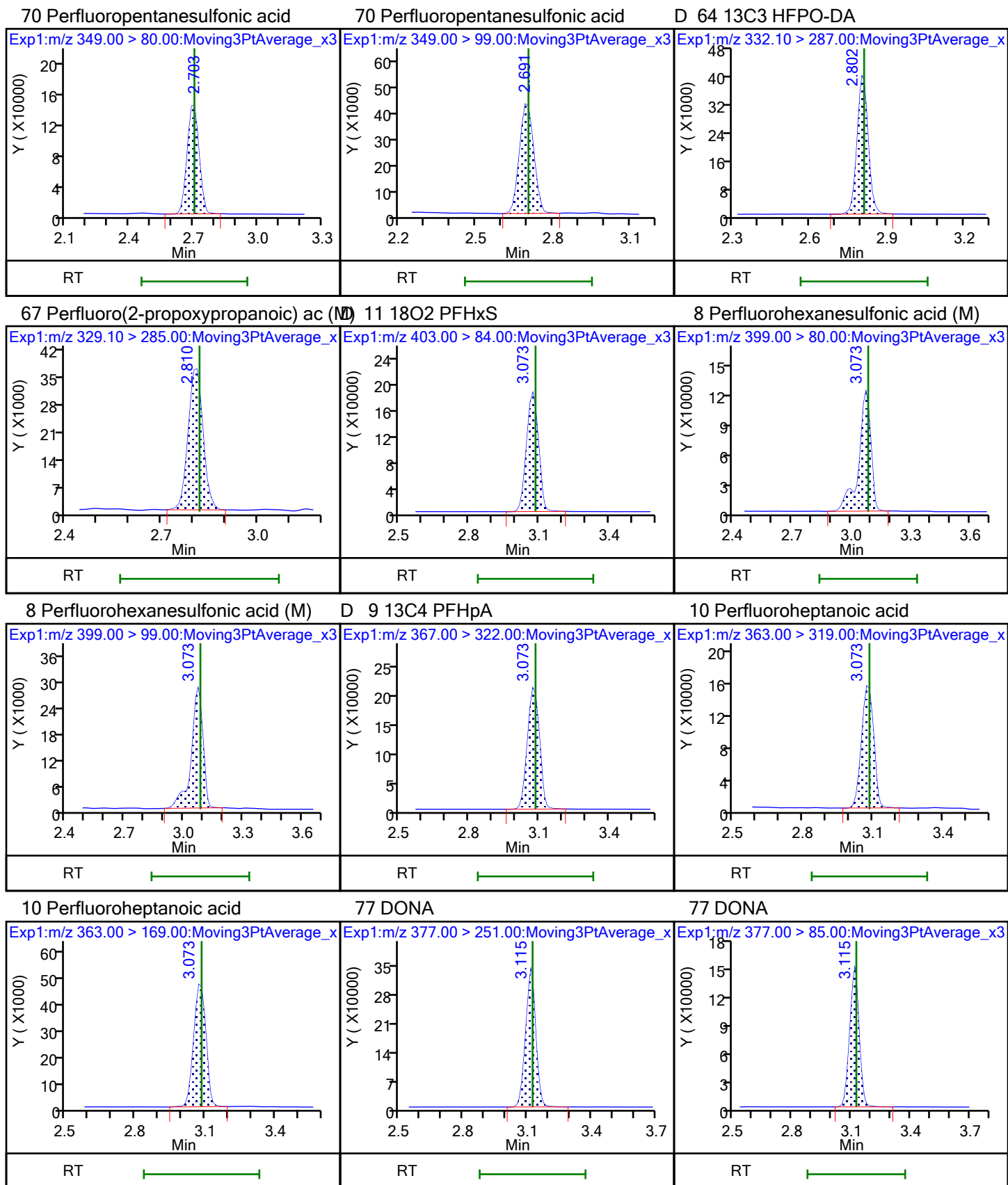


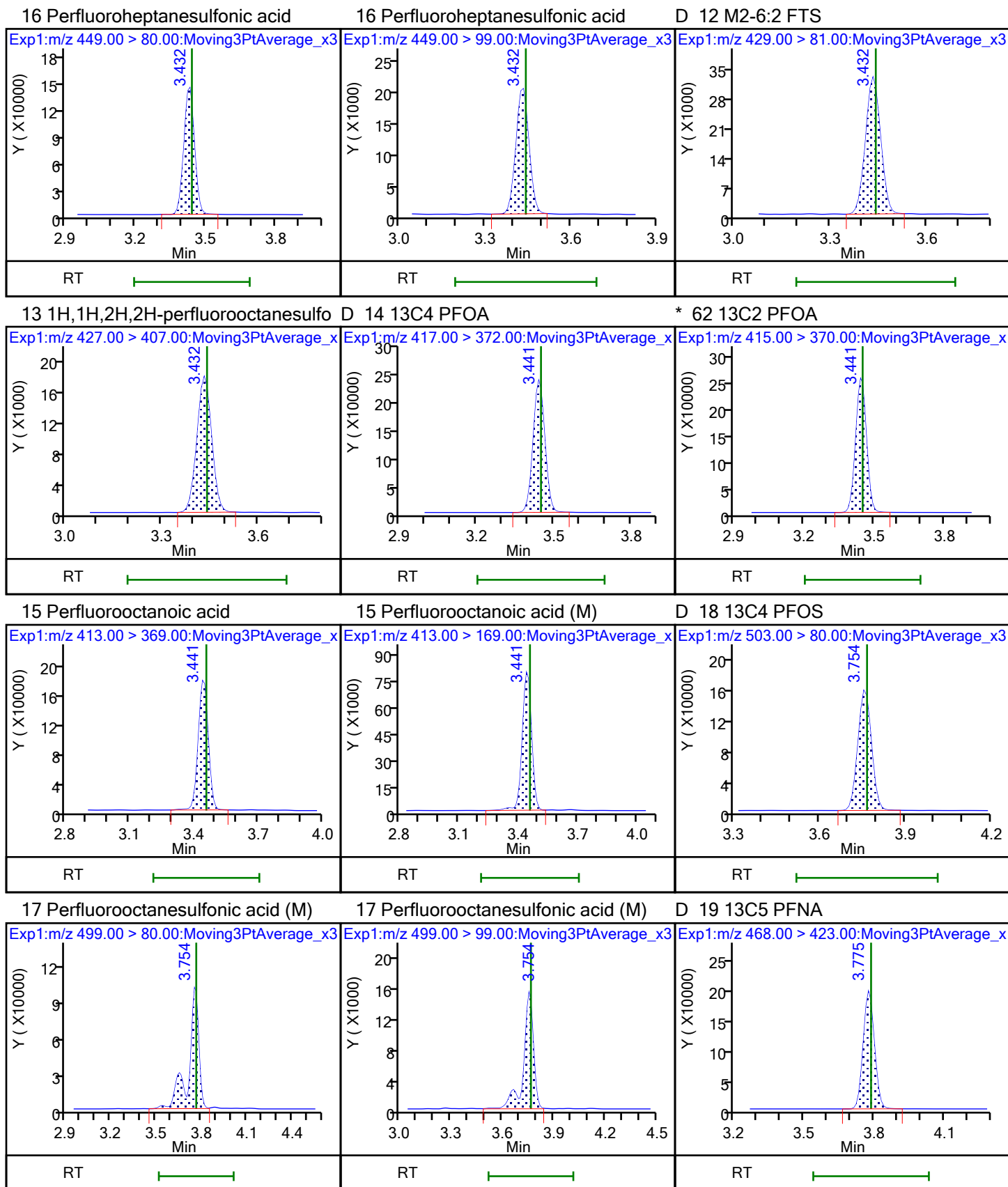
D 7 13C2 PFHxA

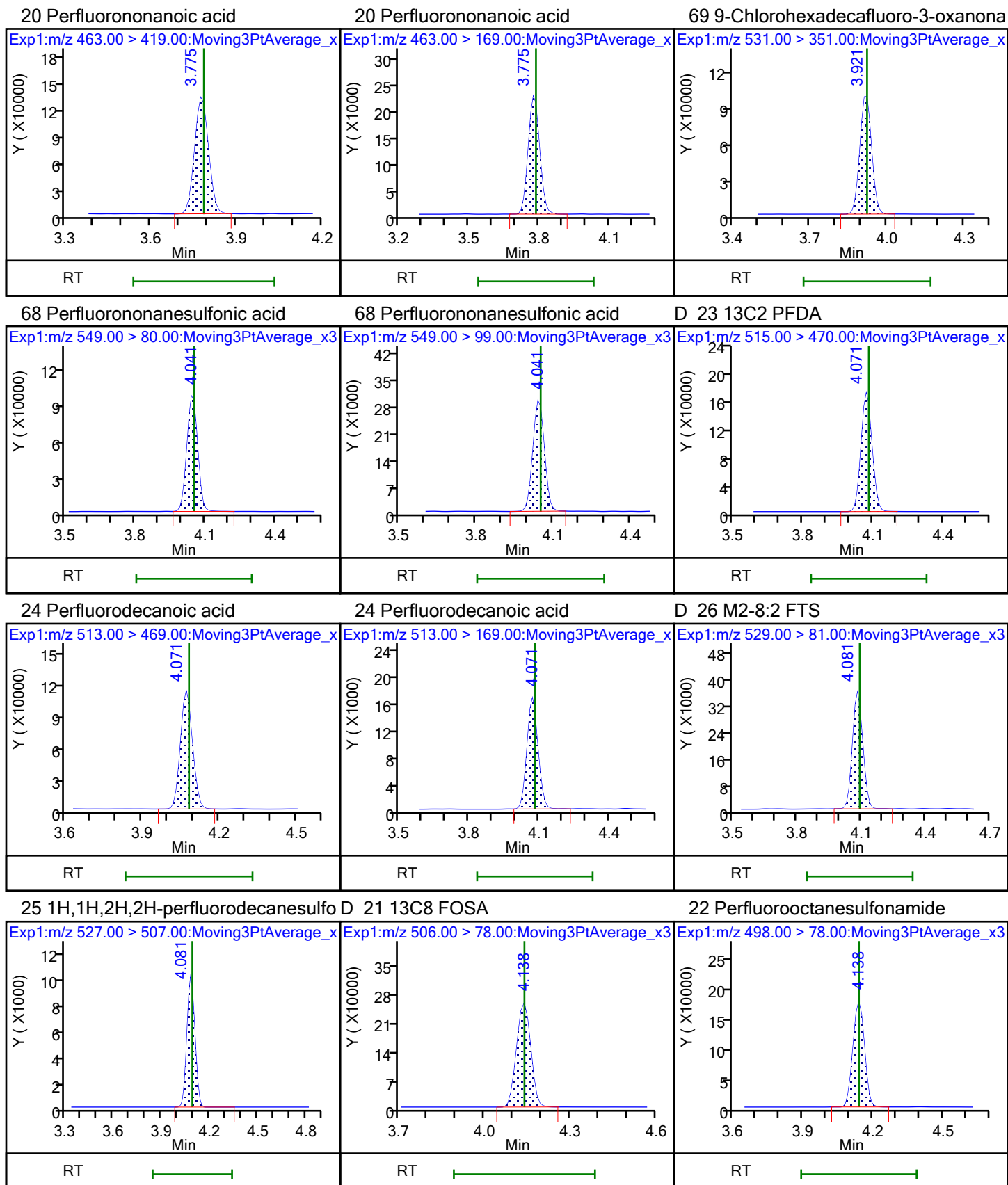
6 Perfluorohexanoic acid

6 Perfluorohexanoic acid







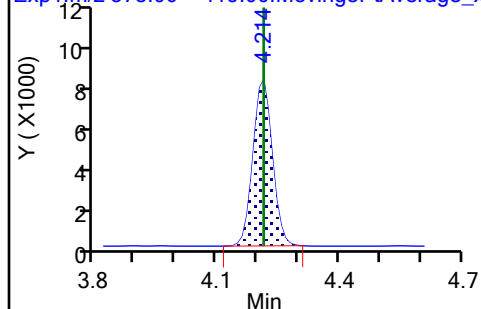


D 27 d3-NMeFOSAA

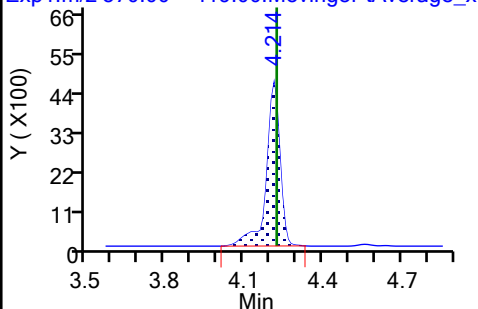
28 N-methylperfluorooctanesulfonami

29 Perfluorodecanesulfonic acid

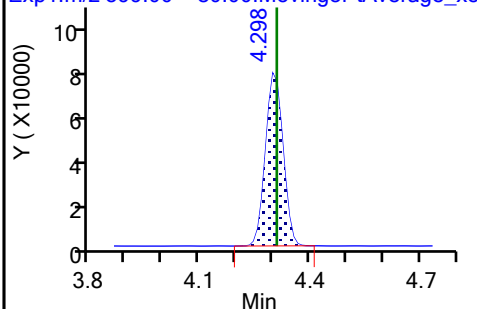
Exp1:m/z 573.00 > 419.00:Moving3PtAverage_x3



Exp1:m/z 570.00 > 419.00:Moving3PtAverage_x3



Exp1:m/z 599.00 > 80.00:Moving3PtAverage_x3

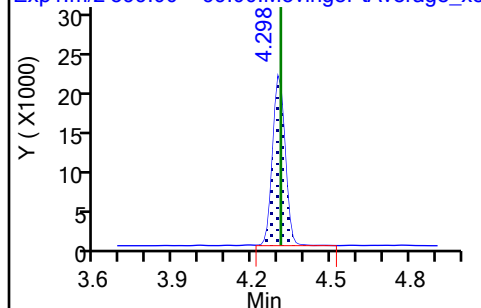


29 Perfluorodecanesulfonic acid

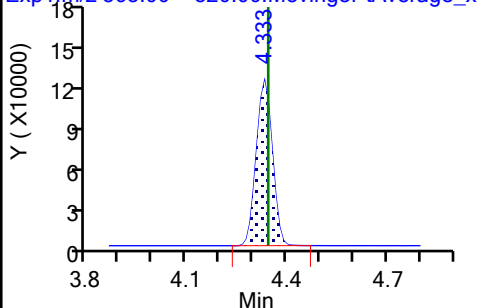
D 30 13C2 PFUnA

31 Perfluoroundecanoic acid

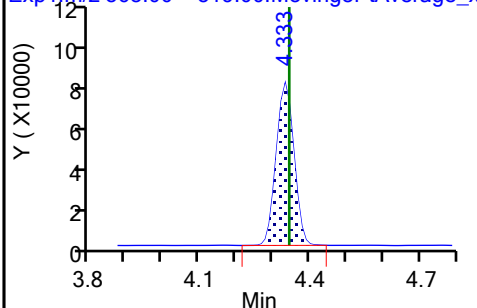
Exp1:m/z 599.00 > 99.00:Moving3PtAverage_x3



Exp1:m/z 565.00 > 520.00:Moving3PtAverage_x3



Exp1:m/z 563.00 > 519.00:Moving3PtAverage_x3

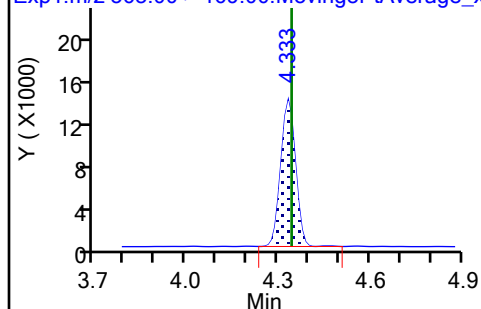


31 Perfluoroundecanoic acid

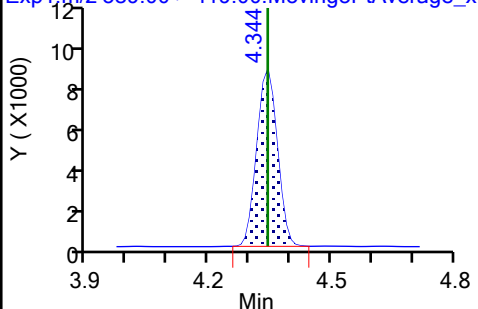
D 32 d5-NEtFOSAA

33 N-ethylperfluorooctanesulfonamid (M)

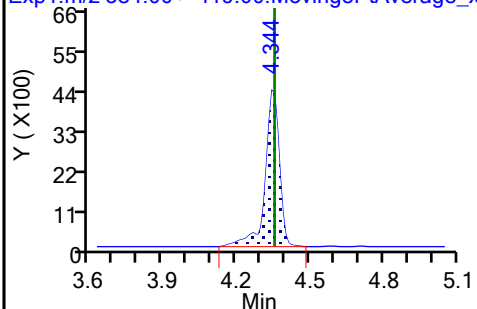
Exp1:m/z 563.00 > 169.00:Moving3PtAverage_x3



Exp1:m/z 589.00 > 419.00:Moving3PtAverage_x3



Exp1:m/z 584.00 > 419.00:Moving3PtAverage_x3

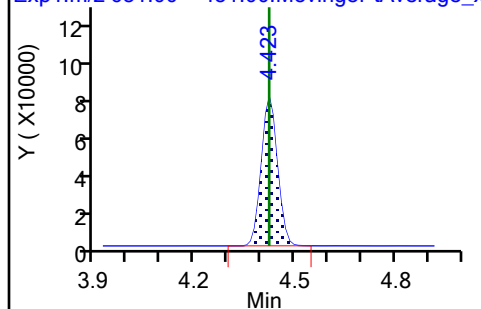


66 11-Chloroeicosafluoro-3-oxaundec

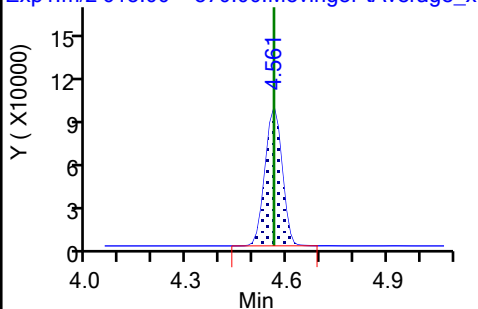
D 36 13C2 PFDaA

37 Perfluorododecanoic acid

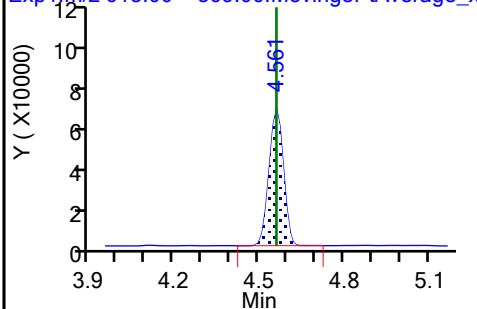
Exp1:m/z 631.00 > 451.00:Moving3PtAverage_x3

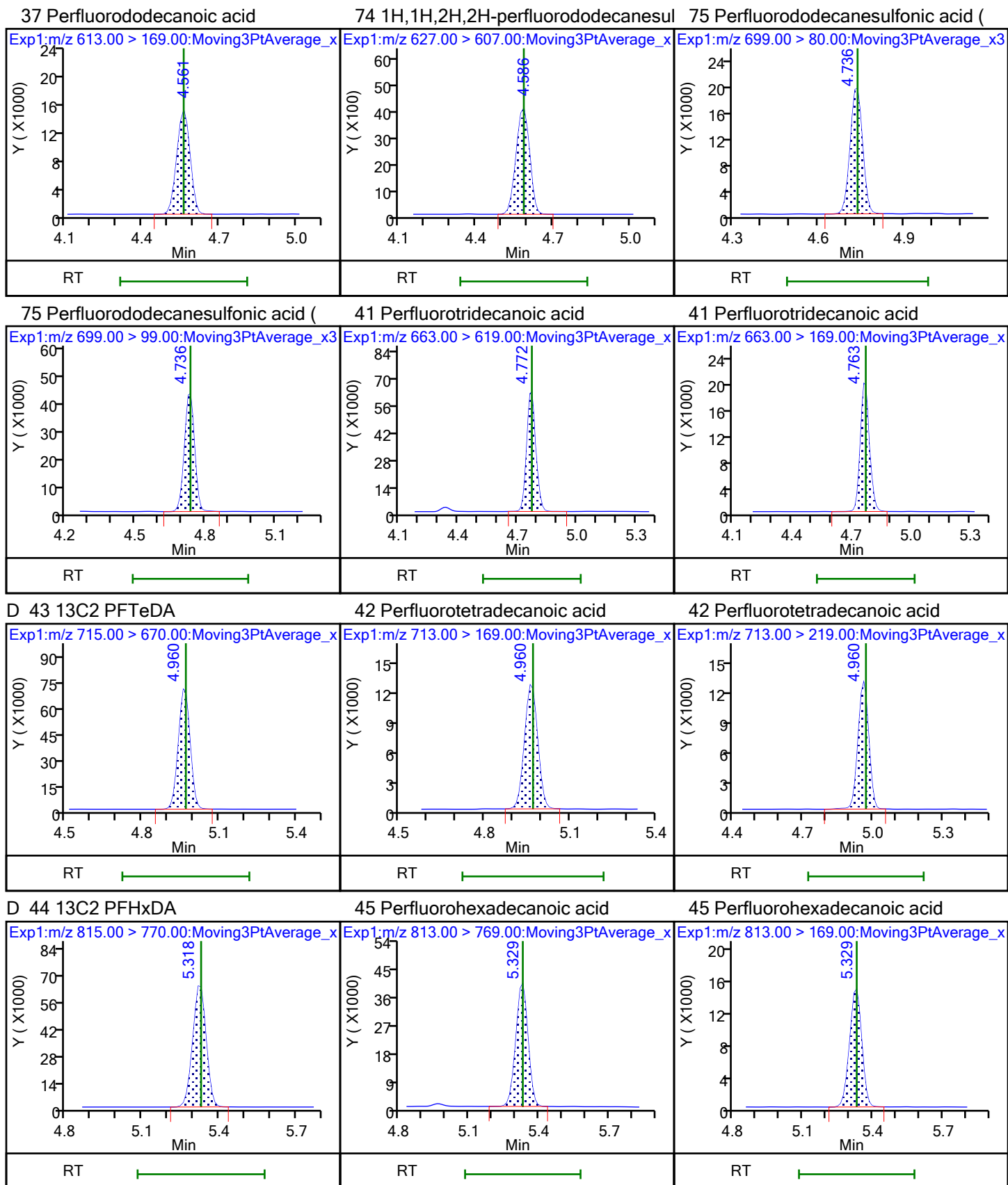


Exp1:m/z 615.00 > 570.00:Moving3PtAverage_x3



Exp1:m/z 613.00 > 569.00:Moving3PtAverage_x3

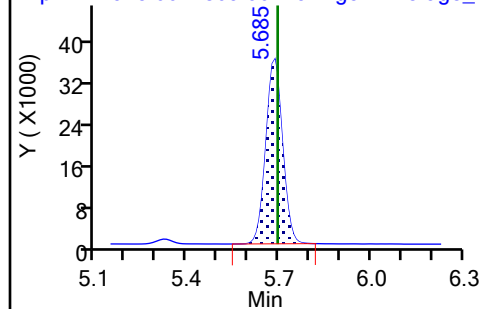




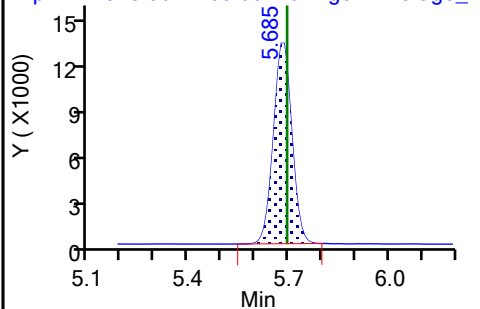
46 Perfluorooctadecanoic acid

46 Perfluorooctadecanoic acid

Exp1:m/z 913.00 > 869.00:Moving3PtAverage_x



Exp1:m/z 913.00 > 169.00:Moving3PtAverage_x



Eurofins TestAmerica, Burlington

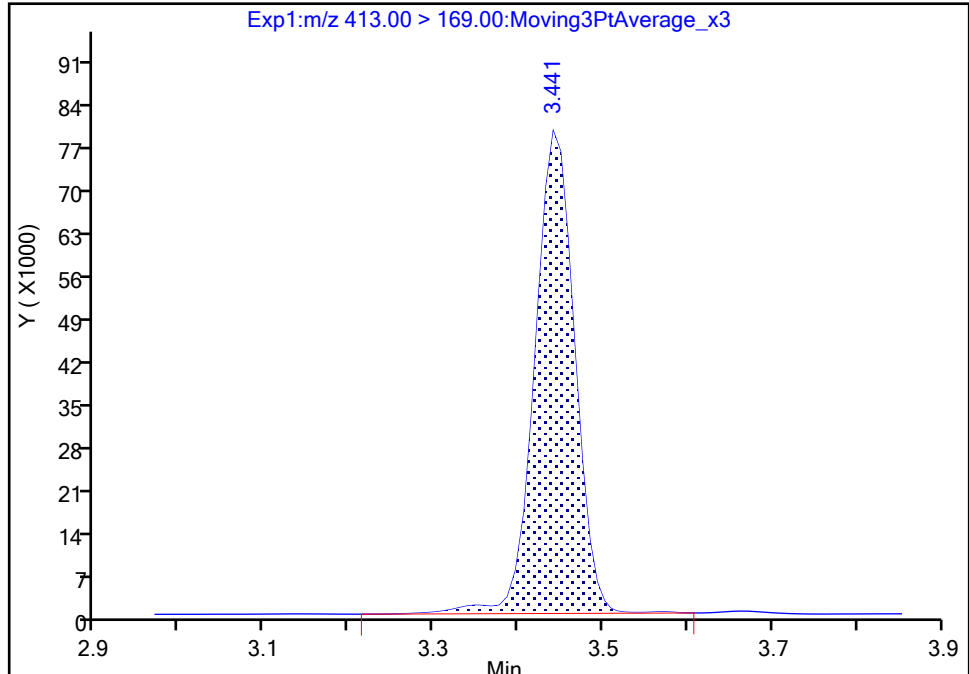
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A20.d
Injection Date: 27-Oct-2020 19:42:19 Instrument ID: LC812
Lims ID: 480-176996-C-2-C MSD
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 17 Worklist Smp#: 20
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

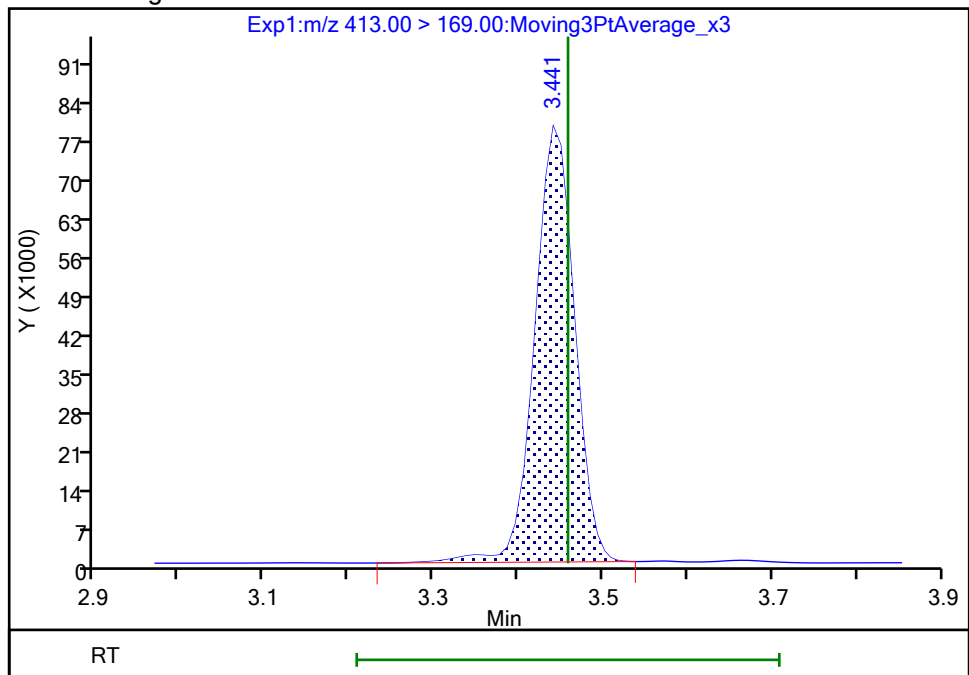
RT: 3.44
Area: 259311
Amount: 0.917560
Amount Units: ng/ml

Processing Integration Results



RT: 3.44
Area: 257822
Amount: 0.917560
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:23:27

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

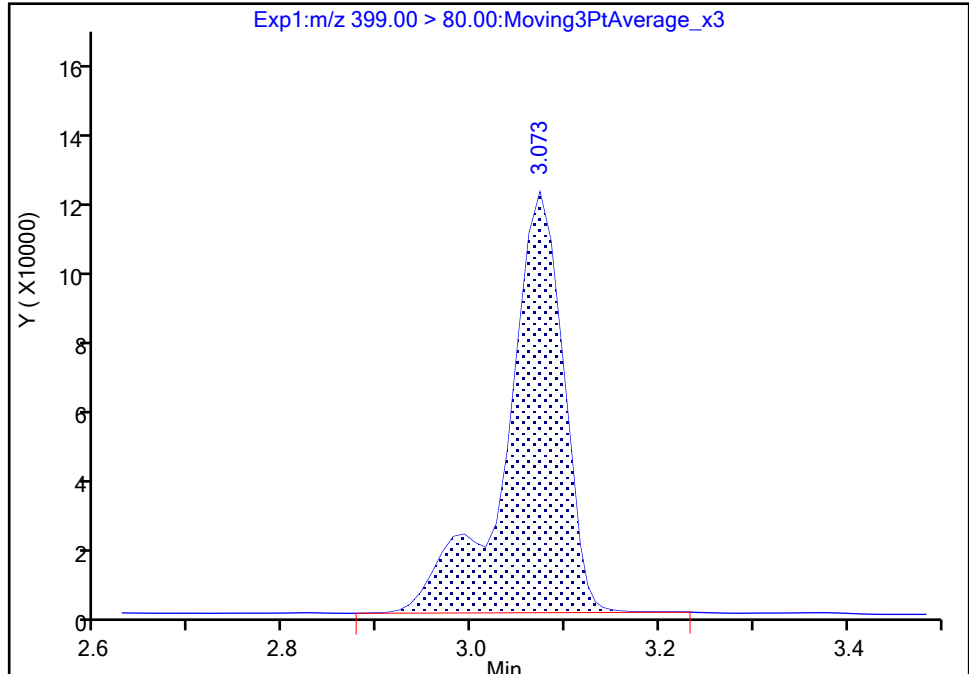
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A20.d
Injection Date: 27-Oct-2020 19:42:19 Instrument ID: LC812
Lims ID: 480-176996-C-2-C MSD
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 17 Worklist Smp#: 20
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

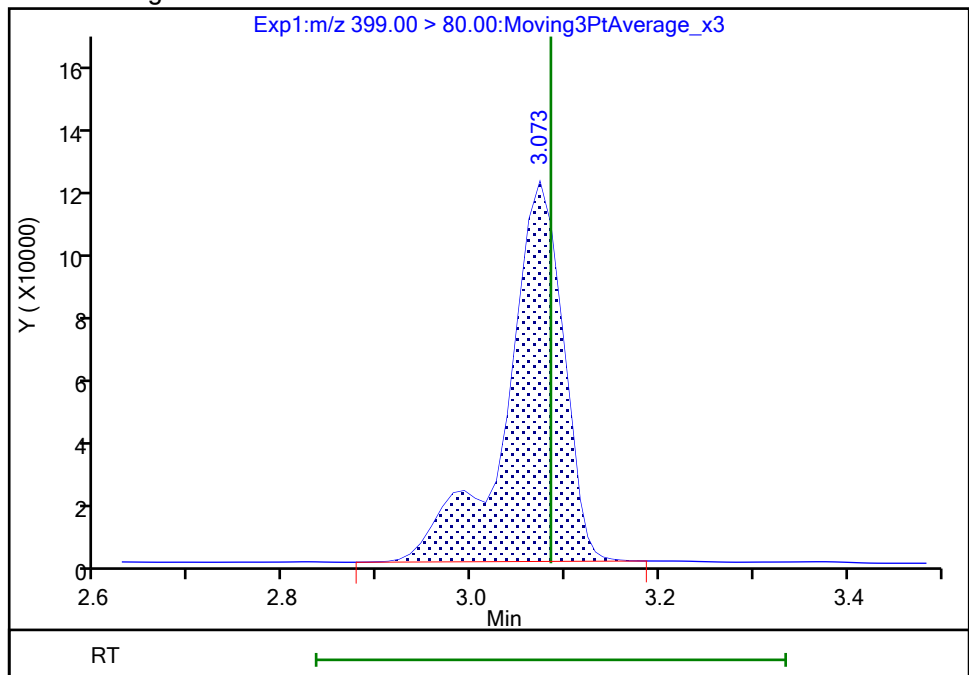
RT: 3.07
Area: 516176
Amount: 0.834465
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 514675
Amount: 0.832038
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:23:10

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

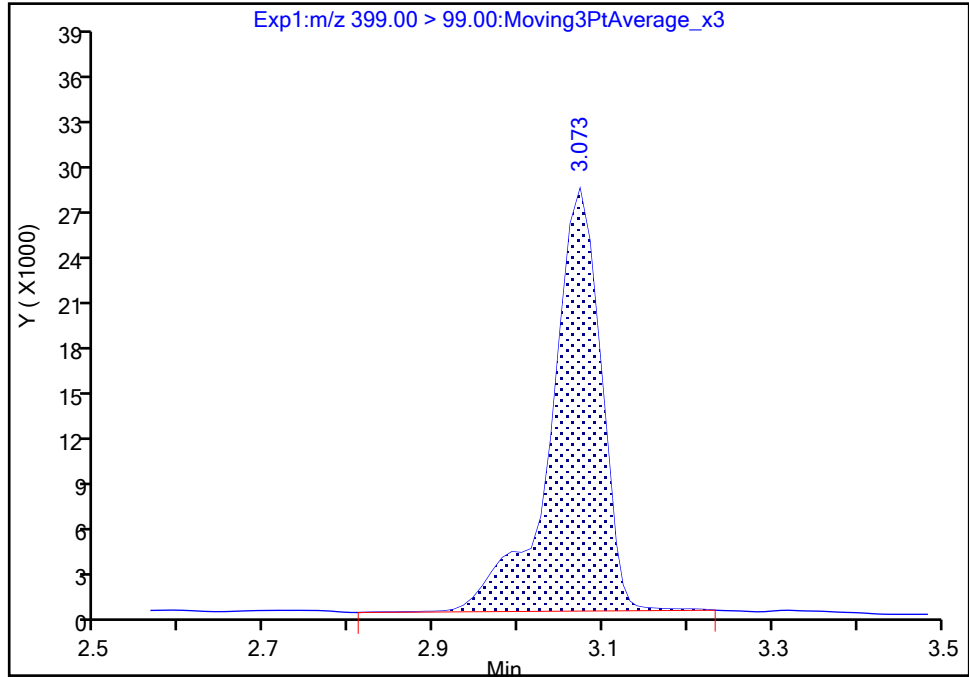
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A20.d
Injection Date: 27-Oct-2020 19:42:19 Instrument ID: LC812
Lims ID: 480-176996-C-2-C MSD
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 17 Worklist Smp#: 20
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

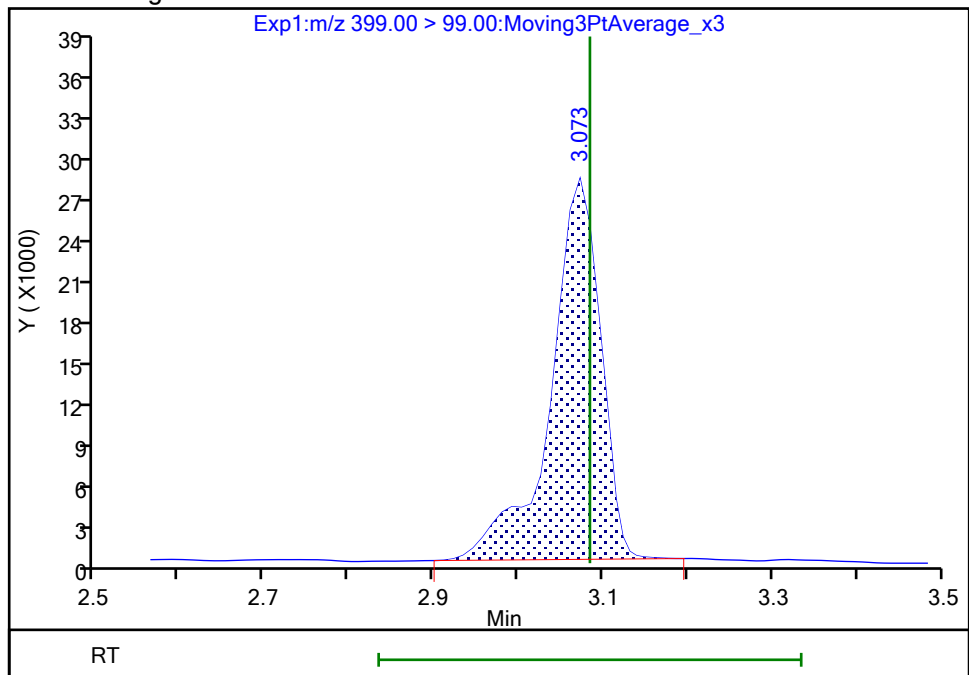
RT: 3.07
Area: 116149
Amount: 0.834465
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 114804
Amount: 0.832038
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:23:17

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 891 of 906

Eurofins TestAmerica, Burlington

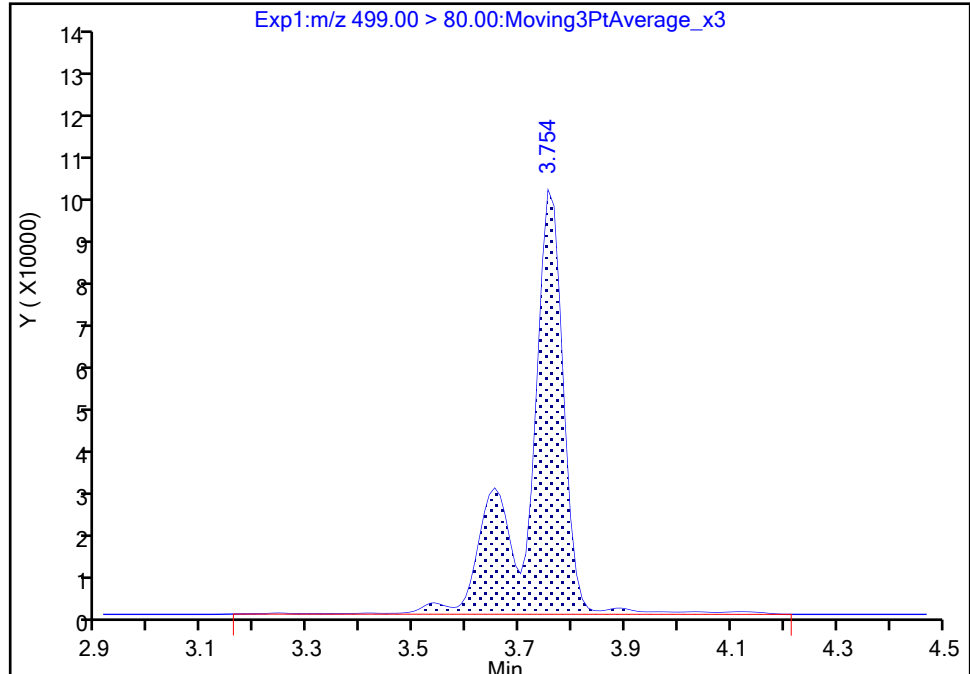
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A20.d
Injection Date: 27-Oct-2020 19:42:19 Instrument ID: LC812
Lims ID: 480-176996-C-2-C MSD
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 17 Worklist Smp#: 20
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

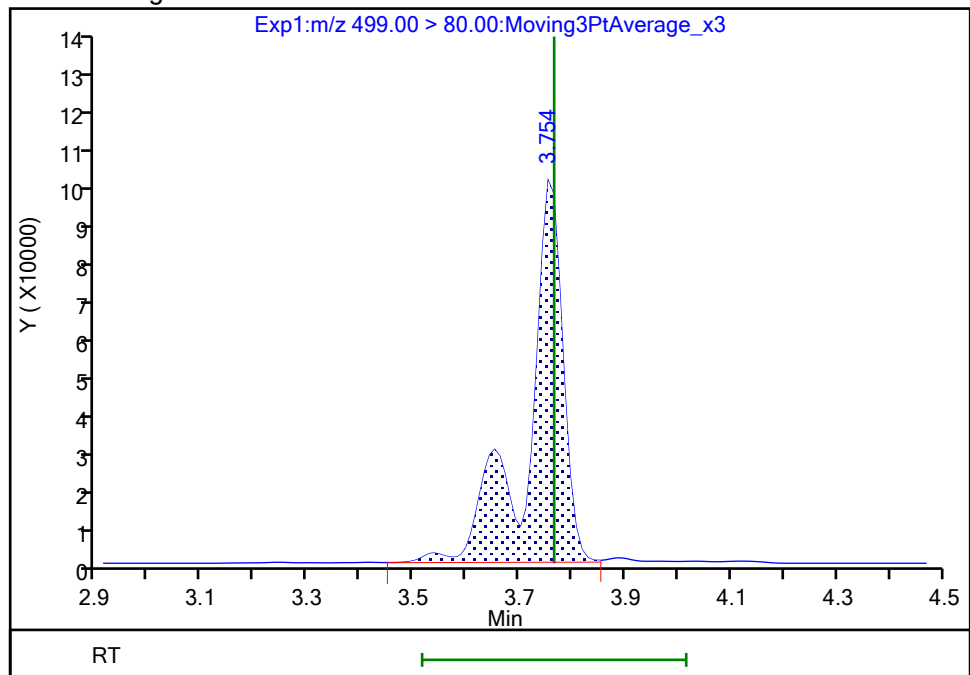
RT: 3.75
Area: 469551
Amount: 1.017967
Amount Units: ng/ml

Processing Integration Results



RT: 3.75
Area: 452088
Amount: 0.980108
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 12:58:25

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

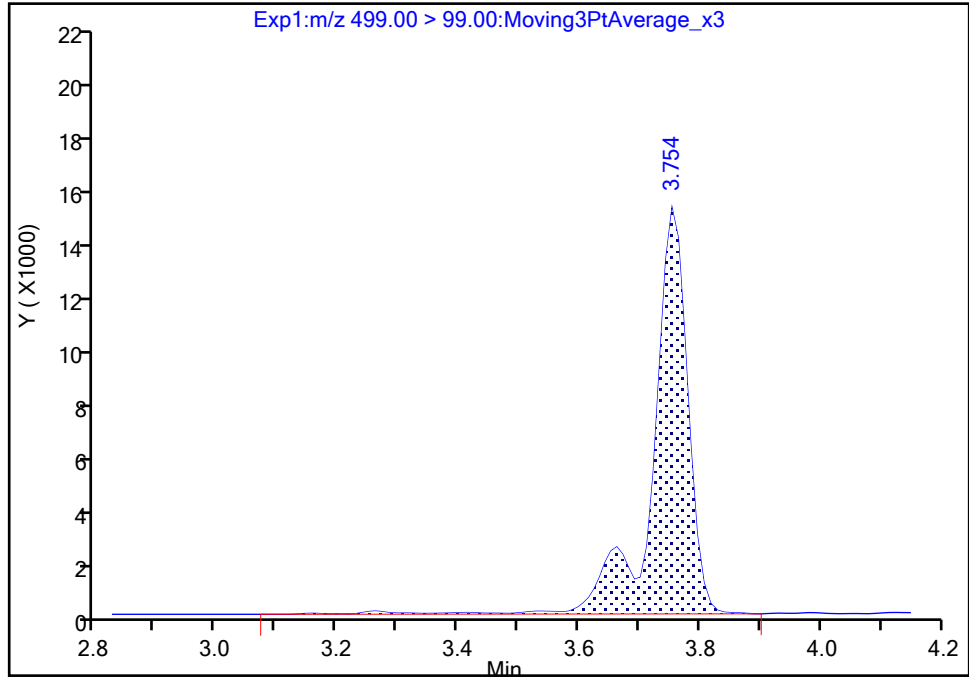
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A20.d
Injection Date: 27-Oct-2020 19:42:19 Instrument ID: LC812
Lims ID: 480-176996-C-2-C MSD
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 17 Worklist Smp#: 20
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

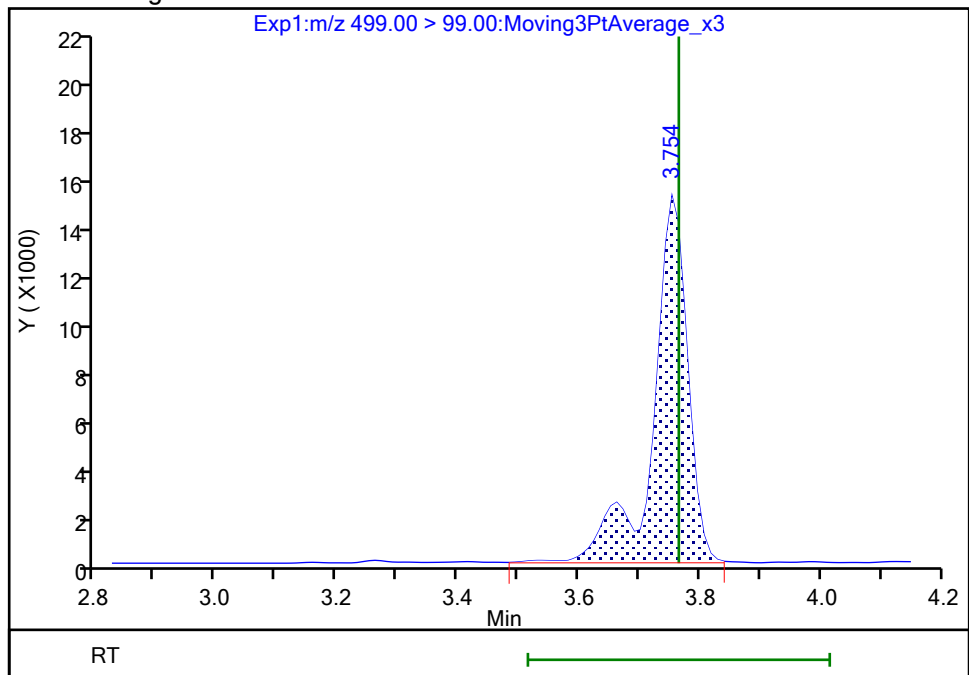
RT: 3.75
Area: 60370
Amount: 1.017967
Amount Units: ng/ml

Processing Integration Results



RT: 3.75
Area: 59442
Amount: 0.980108
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 28-Oct-2020 12:58:34

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 893 of 906

Eurofins TestAmerica, Burlington

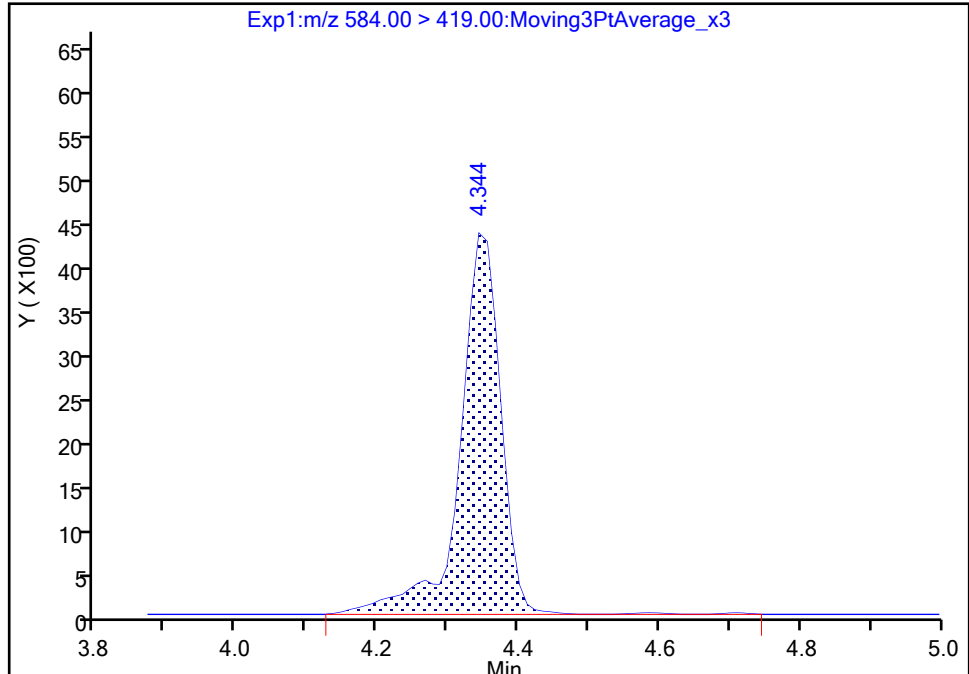
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A20.d
Injection Date: 27-Oct-2020 19:42:19 Instrument ID: LC812
Lims ID: 480-176996-C-2-C MSD
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 17 Worklist Smp#: 20
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

33 N-ethylperfluorooctanesulfonamid, CAS: 2991-50-6

Signal: 1

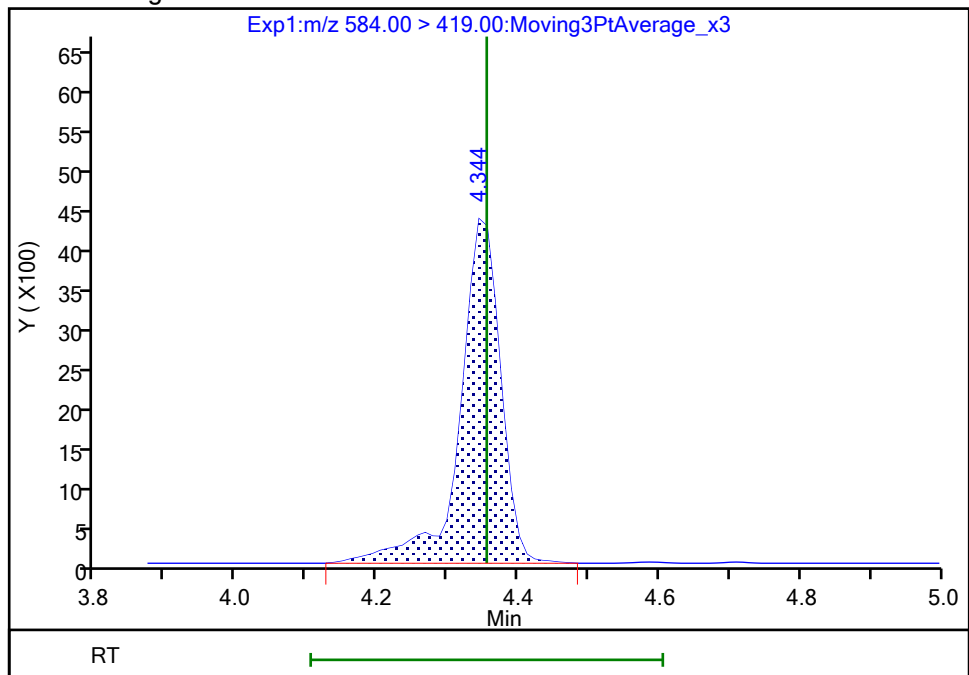
RT: 4.34
Area: 17492
Amount: 0.817034
Amount Units: ng/ml

Processing Integration Results



RT: 4.34
Area: 17414
Amount: 0.813391
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:24:05

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

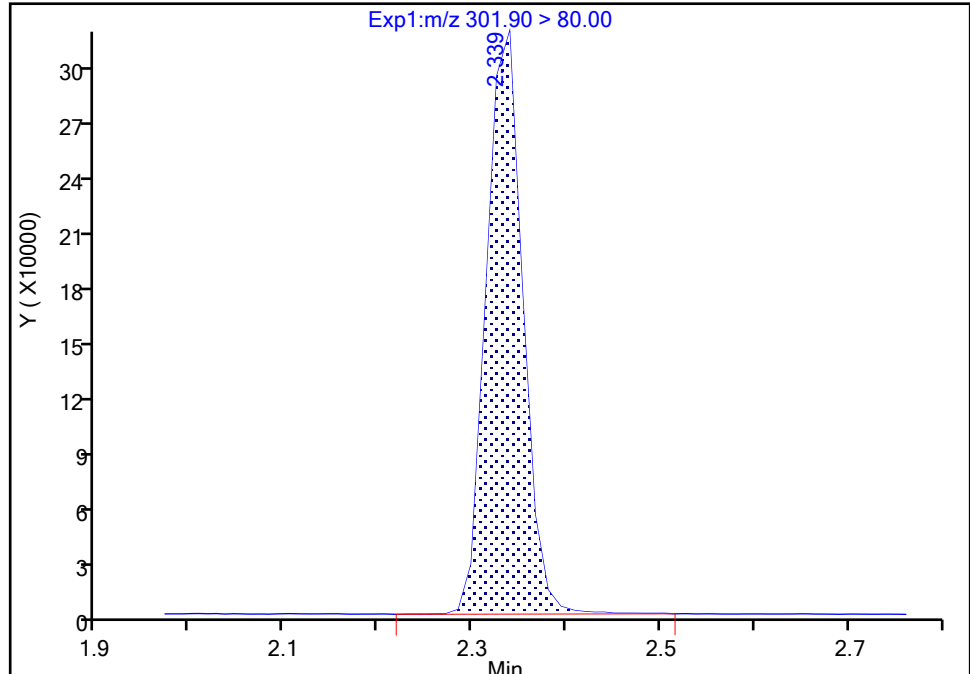
Data File: \\chromfs\Burlington\ChromData\LC812\20201027-43412.b\PA201027A20.d
Injection Date: 27-Oct-2020 19:42:19 Instrument ID: LC812
Lims ID: 480-176996-C-2-C MSD
Client ID: TPW-33R
Operator ID: lc812tech ALS Bottle#: 17 Worklist Smp#: 20
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector: EXP1

D 47 13C3 PFBS, CAS: STL02337

Signal: 1

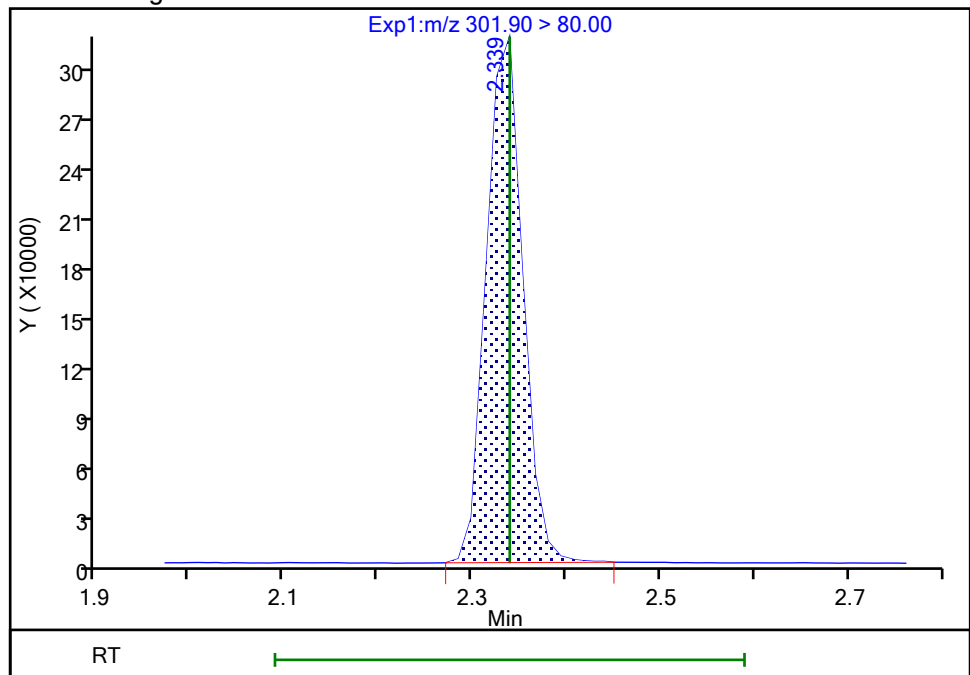
RT: 2.34
Area: 854971
Amount: 1.056049
Amount Units: ng/ml

Processing Integration Results



RT: 2.34
Area: 850705
Amount: 1.050780
Amount Units: ng/ml

Manual Integration Results



Reviewer: khanphomeea, 28-Oct-2020 09:22:15

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

LCMS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-176996-1

SDG No.: _____

Instrument ID: LC812 Start Date: 09/22/2020 19:05Analysis Batch Number: 159115 End Date: 09/22/2020 20:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		09/22/2020 19:05	1		C-18 4.6 (mm)
ZZZZZ		09/22/2020 19:13	1		C-18 4.6 (mm)
ZZZZZ		09/22/2020 19:22	1		C-18 4.6 (mm)
IC 200-159115/5		09/22/2020 19:30	1	PA200922ICAL05. d	C-18 4.6 (mm)
IC 200-159115/6		09/22/2020 19:38	1	PA200922ICAL06. d	C-18 4.6 (mm)
IC 200-159115/7		09/22/2020 19:47	1	PA200922ICAL07. d	C-18 4.6 (mm)
ICIS 200-159115/8		09/22/2020 19:55	1	PA200922ICAL08. d	C-18 4.6 (mm)
IC 200-159115/9		09/22/2020 20:03	1	PA200922ICAL09. d	C-18 4.6 (mm)
IC 200-159115/10		09/22/2020 20:11	1	PA200922ICAL10. d	C-18 4.6 (mm)
ICB 200-159115/11		09/22/2020 20:20	1	PA200922ICAL11. d	C-18 4.6 (mm)
ICV 200-159115/12		09/22/2020 20:28	1	PA200922ICAL12. d	C-18 4.6 (mm)
ZZZZZ		09/22/2020 20:36	1		C-18 4.6 (mm)

LCMS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, BurlingtonJob No.: 480-176996-1

SDG No.: _____

Instrument ID: LC812Start Date: 10/27/2020 16:49Analysis Batch Number: 160481End Date: 10/27/2020 21:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		10/27/2020 16:49	1		C-18 4.6 (mm)
ZZZZZ		10/27/2020 16:57	1		C-18 4.6 (mm)
ZZZZZ		10/27/2020 17:05	1		C-18 4.6 (mm)
ZZZZZ		10/27/2020 17:13	1		C-18 4.6 (mm)
CCVL 200-160481/5		10/27/2020 17:22	1	PA201027A05.d	C-18 4.6 (mm)
CCVIS 200-160481/6		10/27/2020 17:30	1	PA201027A06.d	C-18 4.6 (mm)
MB 200-160391/1-A		10/27/2020 17:38	1	PA201027A07.d	C-18 4.6 (mm)
LCS 200-160391/2-A		10/27/2020 17:47	1	PA201027A08.d	C-18 4.6 (mm)
ZZZZZ		10/27/2020 17:55	1		C-18 4.6 (mm)
ZZZZZ		10/27/2020 18:03	1		C-18 4.6 (mm)
ZZZZZ		10/27/2020 18:11	1		C-18 4.6 (mm)
ZZZZZ		10/27/2020 18:20	1		C-18 4.6 (mm)
ZZZZZ		10/27/2020 18:44	1		C-18 4.6 (mm)
ZZZZZ		10/27/2020 18:52	1		C-18 4.6 (mm)
ZZZZZ		10/27/2020 19:00	1		C-18 4.6 (mm)
ZZZZZ		10/27/2020 19:09	1		C-18 4.6 (mm)
480-176996-1	EQUIP BLANK	10/27/2020 19:17	1	PA201027A17.d	C-18 4.6 (mm)
480-176996-2	TPW-33R	10/27/2020 19:25	1	PA201027A18.d	C-18 4.6 (mm)
480-176996-2 MS	TPW-33R MS	10/27/2020 19:34	1	PA201027A19.d	C-18 4.6 (mm)
480-176996-2 MSD	TPW-33R MSD	10/27/2020 19:42	1	PA201027A20.d	C-18 4.6 (mm)
CCV 200-160481/21		10/27/2020 19:50	1	PA201027A21.d	C-18 4.6 (mm)
480-176996-3	B1231-MW-03	10/27/2020 19:58	1	PA201027A22.d	C-18 4.6 (mm)
480-176996-4	B1243-W05	10/27/2020 20:07	1	PA201027A23.d	C-18 4.6 (mm)
480-176996-5	MW-1253 IR	10/27/2020 20:15	1	PA201027A24.d	C-18 4.6 (mm)
480-176996-6	B1219-W06	10/27/2020 20:23	1	PA201027A25.d	C-18 4.6 (mm)
480-176996-7	B-54 B1266-W12	10/27/2020 20:32	1	PA201027A26.d	C-18 4.6 (mm)
480-176996-8	TPW-14	10/27/2020 20:40	1	PA201027A27.d	C-18 4.6 (mm)
480-176996-9	DUPLICATE	10/27/2020 20:48	1	PA201027A28.d	C-18 4.6 (mm)
ZZZZZ		10/27/2020 20:56	1		C-18 4.6 (mm)
ZZZZZ		10/27/2020 21:05	1		C-18 4.6 (mm)
CCV 200-160481/31		10/27/2020 21:13	1	PA201027A31.d	C-18 4.6 (mm)

LCMS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Burlingt Job No.: 480-176996-1

SDG No.: _____

Batch Number: 160391Batch Start Date: 10/27/20 09:15Batch Analyst: Wisniewski, Kurtis FBatch Method: 3535Batch End Date: 10/27/20 13:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	LCMPFCIDASPK 00020	LCPFC32MTXStk 00027
MB 200-160391/1		3535, 537 (modified)		250 g	0 g	250 mL	10 mL	12.5 uL	
LCS 200-160391/2		3535, 537 (modified)		250 g	0 g	250 mL	10 mL	12.5 uL	25 uL
480-176996-C-1	EQUIP BLANK	3535, 537 (modified)	T	309.06 g	26.09 g	283 mL	10 mL	12.5 uL	
480-176996-C-2	TPW-33R	3535, 537 (modified)	T	319.06 g	26.32 g	292.7 mL	10 mL	12.5 uL	
480-176996-C-2 MS	TPW-33R	3535, 537 (modified)	T	313.02 g	25.80 g	287.2 mL	10 mL	12.5 uL	25 uL
480-176996-C-2 MSD	TPW-33R	3535, 537 (modified)	T	307.14 g	25.50 g	281.6 mL	10 mL	12.5 uL	25 uL
480-176996-C-3	B1231-MW-03	3535, 537 (modified)	T	305.62 g	25.87 g	279.8 mL	10 mL	12.5 uL	
480-176996-C-4	B1243-W05	3535, 537 (modified)	T	322.53 g	26.23 g	296.3 mL	10 mL	12.5 uL	
480-176996-C-5	MW-1253 IR	3535, 537 (modified)	T	320.59 g	25.89 g	294.7 mL	10 mL	12.5 uL	
480-176996-C-6	B1219-W06	3535, 537 (modified)	T	324.58 g	26.01 g	298.6 mL	10 mL	12.5 uL	
480-176996-C-7	B-54 B1266-W12	3535, 537 (modified)	T	312.56 g	26.02 g	286.5 mL	10 mL	12.5 uL	
480-176996-C-8	TPW-14	3535, 537 (modified)	T	306.85 g	25.80 g	281.1 mL	10 mL	12.5 uL	
480-176996-C-9	DUPLICATE	3535, 537 (modified)	T	314.95 g	26.12 g	288.8 mL	10 mL	12.5 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	PFAS21 IS Stk 00024	AnalysisComment				
MB 200-160391/1		3535, 537 (modified)		10 uL					
LCS 200-160391/2		3535, 537 (modified)		10 uL					
480-176996-C-1	EQUIP BLANK	3535, 537 (modified)	T	10 uL					
480-176996-C-2	TPW-33R	3535, 537 (modified)	T	10 uL					
480-176996-C-2 MS	TPW-33R	3535, 537 (modified)	T	10 uL					
480-176996-C-2 MSD	TPW-33R	3535, 537 (modified)	T	10 uL					

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)

Page 1 of 2

LCMS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Burlingt Job No.: 480-176996-1

SDG No.: _____

Batch Number: 160391 Batch Start Date: 10/27/20 09:15 Batch Analyst: Wisniewski, Kurtis FBatch Method: 3535 Batch End Date: 10/27/20 13:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	PFAS21 IS Stk 00024	AnalysisComment				
480-176996-C-3	B1231-MW-03	3535, 537 (modified)	T	10 uL					
480-176996-C-4	B1243-W05	3535, 537 (modified)	T	10 uL					
480-176996-C-5	MW-1253 IR	3535, 537 (modified)	T	10 uL					
480-176996-C-6	B1219-W06	3535, 537 (modified)	T	10 uL	Sediment discarded. 294.01 g of sample extracted.				
480-176996-C-7	B-54 B1266-W12	3535, 537 (modified)	T	10 uL					
480-176996-C-8	TPW-14	3535, 537 (modified)	T	10 uL					
480-176996-C-9	DUPLICATE	3535, 537 (modified)	T	10 uL					

Batch Notes	
Balance ID	M02926
Manifold ID	IDA 3 & 4
Rinse Solvent Lot	1431845
Rinse Solvent Name	Hexane
Solvent Lot #	1438302
Solvent Name	Methanol (0.3% NH4OH)
SPE Cartridge Lot ID	Lot 005339338A
SPE Cartridge Type	Oasis WAX 500 mg
Analyst ID - Spike Analyst	KFW
Analyst ID - Spike Witness Analyst	NDD

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.

537 (modified)

Page 2 of 2

Subcontract Data

Shipping and Receiving Documents

Client Information		Lab PM:		Carrier Tracking No(s)		COC No:	
Client Contact Scott Bryant Company: Precision Environmental Services Inc. Address: 831 State Route 67 Ste 38 City: Ballston Spa State: NY, 12020 Phone:		Stone, Judy L E-Mail: Judy.Stone@Eurofinset.com Job #:		480-152051-33811.1 Page: Page 1 of 2		480-152051-33811.1 Page: Page 1 of 2	
Analysis Requested  480-176996 Chain of Custody				Preservation Codes: A - HCL 3 - NaOH 1 - Zn Acetate 1 - Nitric Acid O - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify) L - EDTA Other:			
Due Date Requested: TAT Requested (days): Standard (10-Day)		PO #: Callout ID 139267 WO #: Project #60277036 Project #: 48022911 SSOW #:		Sample Identification Equip. Blank TPW-33R B1231-MW-03 B1243-W05 MW-1253TR B1219-W06 B-54/B1266-W12 TPW-14 Duplicate		Sample Date 10-21-20 10-21-20 10-21-20 10-21-20 10-21-20 10-21-20 10-21-20 10-21-20	
Sample Time 0745 0700 1020 1140 1315 1400 1510 1655		Sample Type (C=Comp, G=grab) Grab Grab Grab Grab Grab Grab Grab Grab		Matrix (W=water, S=solid, O=organic, BT=Tissue, Air) Water Water Water Water Water Water Water Water Water		Field Filtered Sample (Yes or No) Yes No No No No No No No No	
Field Filtered Sample (Yes or No) Yes No No No No No No No No		PFC, IDA - PFA, Standard List (21 analytes) N N N N N N N N N N		8270, SIM, MS, ID - 1,4-Dioxane N N N N N N N N N		Total Number of containers 4 12 4 4 4 4 4 4 4 4	
Special Instructions/Note:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months					
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological		Deliverable Requested: I, II, III, IV, Other (specify) Cat B deliverables					
Empty Kit Relinquished by: Relinquished by:		Date: 10/22/20		Time: 0720		Company: PPS	
Relinquished by: Relinquished by:		Date/Time: 10/22/20 1700		Date/Time: 10/22/20 0720		Company: PPS	
Relinquished by: Relinquished by:		Date/Time: 10/23/20 0800		Date/Time: 10/23/20 0730		Company: PPS	
Custody Seal No.: Δ Yes Δ No		Custody Seal No.: 3.2.2.8 #1					

FROM:
TIM KNOLLMEYER (518) 438-8140
TESTAMERICA LAB INC
25 KRAFT AVE
ALBANY NY 12205
US

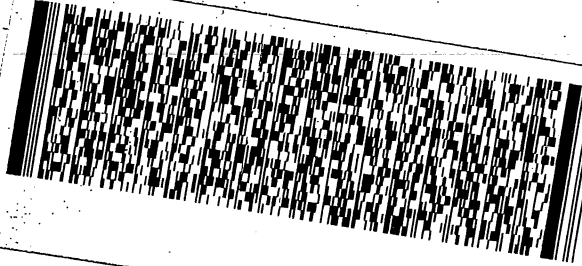
SHIP DATE: 22OCT20
ACTWGT: 55.25 LB
CAD: 0886598/CAFE3313

BILL 3rd PARTY

56SC2/A27E/05A2

TO **SAMPLE RECEIVING**
TESTAMERICA - BURLINGTON
30 COMMUNITY DRIVE, SUITE 11
BURLINGTON VT 05403
(802) 660-1990
REF: PES

(US)



FedEx
Ground



J191219082001W

TRK# 1891 4486 3234

05403

9622 0417 3 (000 000 0000) 0 00 1891 4486 3234



Part# 156148-434 RIT EXP 09/19

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-176996-1

Login Number: 176996

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Yeager, Brian A

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	
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	3.2 2.8 #1 ICE
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
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	PES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-176996-1

Login Number: 176996

List Number: 2

Creator: Jaffe, Nat S

List Source: Eurofins TestAmerica, Burlington

List Creation: 10/23/20 03:19 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.1°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	PS
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	